

BIRDS OF THE NEW YORK CITY REGION



FORESTA INSTITUTE
FOR
OCEAN
MOUNTAIN
STUDIES

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PLATE I. ROSE-BREASTED GROSBEEK
Courtesy of the National Association of Audubon Societies

BIRDS OF THE NEW YORK CITY REGION

BY

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With the cooperation of the
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PREFACE

Seventeen years have passed since the appearance of Dr. Chapman's pamphlet on "The Birds of the Vicinity of New York City." This publication briefly summarized the information about our local birds available at that time, and was a veritable mine of inspiration and assistance to the modern generation of field ornithologists and amateur bird students, who were then just beginning work.

It is difficult to conceive the change that has taken place in these seventeen years. For one person interested in birds then there are now hundreds, who cover almost every section of the area at every season of the year. When Dr. Chapman wrote, not only were many parts of his territory without a resident student, but many sections had never even been visited by anyone interested in birds, or had remained unvisited for many years. Twenty-five years ago an active field man went out collecting a few dozen times a year, or made two or three trips lasting a week or so apiece. Nowadays an active student will often be afield a hundred times in one year. The result is an enormous mass of data and notes of all kinds, which, when digested and arranged, greatly extend the knowledge of our birds, and modify many old conceptions of their status and distribution.

The Linnæan Society of New York, throughout this period, has been the main center and nucleus for this growth of ornithological interest. At its meeting of October 14, 1919, Dr. Chapman moved that a committee be appointed to prepare as complete and detailed a Local Avifauna as present knowledge permitted. This committee, appointed somewhat later, consisted of Mr. J. T. Nichols as chairman, Dr. E. R. P. Janvrin, and the writer. Late in December, 1921, Dr. F. A. Lucas, director of the American Museum, who had long realized the need of a new guide of some sort to the local birds, instructed me to prepare a handbook as soon as

possible, it having become evident that publication by the Linnæan Society would be unduly protracted, as no member of the Committee was free to prosecute the work, except at long and irregular intervals. It was accordingly agreed that I should devote my whole time to the preparation of the Handbook, that the Museum would assume the burden of publication, and that the Linnæan Society would coöperate in every possible way. I accordingly became chairman of the Local Avifauna Committee, of which Mr. L. N. Nichols subsequently became the fourth member.

The information on which the Handbook is based is derived from the following sources: (a) The published records, now amounting to an extensive bibliography, have not only been used, but carefully checked and critically examined, regardless of whether they have been summarized and included in previous publications. This literature is widely scattered, some of it in obscure and little known periodicals. In an effort to make the search as complete as possible, the entire bibliography has been gone over four times in the last eight years, the writer acting each time as if he had never done it before. In this way it is hoped that very few if any records have escaped notice. (b) The great majority of the collections made locally are now in this Museum. They have all been examined, regardless of whether they have been the bases of earlier reports or not. The labor involved has been amply rewarded by the discovery of errors of identification and numerous records of local interest as yet unpublished. (c) It is not too much to say that the sight records of the past twenty years constitute fifty percent of the available data for this region in historical times. Over one hundred people have contributed to a greater or less extent the information on which the status, the relative abundance and the migrations of the birds of the area are based. If the list of birds seen on a day afield by one observer is regarded as the unit, the grand total easily passes the enormous sum of one hundred

thousand. Fortunately there were at least half a dozen active members of the Linnæan Society, who were not only competent to draw up local lists from their own and other's notes, but they most generously and helpfully did so. Were it not for their assistance the writer would still be floundering through a mass of statistics. As a matter of form their summaries have been checked in every case, but it is a pleasure to point out the relative simplicity of this task. (d) The writer's own observations commenced in 1896, when he was a small boy. Since 1907 he has been incessantly afield whenever residing in New York City, and has returned from many parts of this country and many foreign countries to local problems with unabated enthusiasm and interest. During this period over 1250 field trips have taken him to every section of the area covered by this Handbook, except northern Westchester County. It includes daily observation of twelve spring migrations, daily observation of two fall migrations, and daily observation of parts of eight others. Since 1909 he has been compiling all the available information.

The object of this Handbook is to render the existing information about local birds readily accessible. Its subtitle might well be: "Our Local Birds, when and where to find them," as these are the first questions anyone interested wants to have answered. The next question, how to recognize and identify the different species of local birds, is outside the province of this book. Limitations of space alone would prevent the inclusion of subject matter, which is fully treated in many inexpensive text-books, obtainable in any book store. A list of those recommended will be found in the bibliography. Bearing in mind, however, the fact that the majority of bird-lovers now happily use the glass instead of the gun, the problem of identifying birds in life has largely replaced the problem of how to get near enough to kill them. Consequently I have given the characters which I have found useful in recognizing many species of birds difficult to

identify in life, wherever the subject has not been adequately treated, in the hope that this might increase the usefulness of the book, without unduly increasing its bulk.

With the purpose of the book thus defined, many matters ordinarily included in a scientific monograph or treatise have been omitted. In leaving out a complete bibliography, I have borne in mind the fact that most of the scattered notes and articles have already been listed in the bibliographies of recent monographic works. Similarly, references to the original publication of records have been omitted wherever possible. All the published references to the captures of rare birds on Long Island, for instance, have been repeated three times in the last sixteen years. There is little point in repeating them a fourth time, and the very few interested can obtain them in one or more of the general works given in the bibliography. I have also been forced to omit discussion of the more technical aspects of such questions of great interest as life-zones, faunal areas, and migration. Space has also been lacking to treat habits, and life histories, or to give in any detail the history of vanished species. Nesting dates for our local breeding birds are now well-known and readily available. Unusually early or late records of complete sets of eggs are deliberately left out, to discourage as much as possible the local collecting of eggs, now largely a waste of life without adequate scientific return.

By all means my most difficult and ungracious task has been weighing the reliability of identifications of living birds. In a recent number of 'The Auk' (January 1922, pp. 31-41) I have discussed at length what seem to me to be the requirements on which these "sight records" should be based. Fortunately all those whose sight records appear in the following pages are either known to me personally through many trips afield together, or are known to others, whose point of view about such records is the same as mine. Moreover, those whose records are the most frequently cited are all

experienced field ornithologists, who are just as competent to judge the writer's records as he is to judge theirs. He has had the privilege of too many years' companionship with them not to be perfectly clear on this point. However, no sight record for a rare or exceptional occurrence has been included, unless specimens of the same species have previously been taken locally. No rare or exceptional record has been included, no matter by whom made, unless the circumstances of the observation and the full details are personally known to me. Several such, here omitted, are unquestionably reliable. In every case sight records of rare species are clearly indicated as such, and the observer or observers are duly credited. It will be noted that many sight records published elsewhere are not mentioned here. This must be taken to mean that either I regard them as unsatisfactory or the observer as unreliable, and that omission of such a record indicates my doubt of its validity. In a few cases I have *reported* rather than *recorded* an observation, with or without comment. This means that I lack the necessary knowledge to vouch for it, but have no grounds for regarding it as unreliable. Records included without comment I vouch for as accurate, in so far as this is possible in any line of human endeavor.

In any area where ornithological research has extended over many decades, and in which many ornithologists and bird students have worked, it is impossible for any one individual to write an adequate account of the bird life, based on the published records and his personal field experience. No one in a life time can hope to have the experience of several generations. Nor in any one generation can the experience of one individual equal that of many others. Even when information has been collected from all available sources, it should be remembered that an absolutely complete account of our local birds is impossible. The most important reason is the fact that our knowledge of the bird-life of the

region is far from complete. Too many local avifaunas contain no hint of this fact, and are written as if the last word on the subject had been pronounced. I have tried in every case to indicate where our knowledge is defective, and to point out many opportunities for the student to add to it.

It is a pleasure to acknowledge the assistance which the writer has received in every direction. All but one of the active members of the Linnæan Society have placed their experience and observation unreservedly at his disposal. Their names will appear frequently in the following pages, and every record given is properly accredited. The members of the Local Avifauna Committee have, of course, rendered additional and invaluable services, which will be mentioned more fully in the proper places beyond. The writer must, however, go further and state that such local knowledge as he possesses is in large measure due to the Linnæan Society and its members. The meetings have stimulated him since boyhood; there he has gained new information, new ideas, and a broader viewpoint. How can one overevaluate the priceless companionship of years afield with one's fellow-members, the sympathy, the bond of a great interest shared in common. Every wood and field, every marsh and beach near New York City, is laden with memories of most of them; few discoveries, few sights of rarities, but were shared with one or more of them; we have been hot, cold, hungry or wet together; we have been storm-bound on islands, bogged in swamps, carried out to sea in rowboats together. Above all I must thank Mr. J. T. Nichols, who knows more about Long Island birds than anyone living, who magnanimously surrendered his plans for publication, for the sake of a work of larger scope, and who has done all he could to make this work a success. To him I have turned for advice and counsel on numerous problems of every kind, and never in vain. I have frequently deferred to his opinion. He has read and corrected the entire manuscript.

Special acknowledgments are due to Dr. Jonathan Dwight. His collection of local birds is now the best in existence, and he has kindly permitted me to record the many unpublished items of interest it contains. Also to Messrs. E. P. Bicknell and Roy Latham for generously supplying invaluable records which they were proposing to publish separately. Mr. W. DeW. Miller has always been ready to answer all queries about New Jersey birds, has put his knowledge and experience at my disposal, and has given advice in many directions. Miss Elizabeth H. McVickar was for several months of the greatest assistance in the monotonous task of collating data and notes. Mr. M. S. Crosby kindly assisted in reading proof, and my brother, the Rev. Acton Griscom, rendered invaluable service in critically reading the entire book in both galley and page proof.

I am indebted to Dr. A. A. Allen, Messrs Louis Agassiz Fuertes, Courtenay Brandreth, and others for their kind permission to reproduce their photographs or paintings. Most of these have appeared in *Natural History*. Messrs. D. Appleton and Co. have permitted the reproduction of a picture from *Bird-Life*. The National Association of Audubon Societies have most generously permitted the use of six of their colored plates, and have facilitated their reproduction in every way.

To Dr. F. M. Chapman, Dr. F. A. Lucas, and Dr. R. W. Tower, I am indebted for kindly interest and encouragement, and assistance in publication.

INTRODUCTION

THE AREA INCLUDED

The area covered by Dr. Chapman's List was roughly within a circle every point on the circumference of which was fifty miles from City Hall. It has been deemed expedient to alter it in several particulars. The area covered by the present Handbook is roughly a rectangle. It includes the whole of Long Island, for a century the favorite field of New York ornithologists, and that part of New York State on the east bank of the Hudson River between the northern boundary of Westchester County and the Connecticut line. On the west side of the Hudson it includes the whole of northern New Jersey, south to the southern extremity of Warren County on the Delaware, and a line drawn from that point across the State to Perth Amboy. A glance at the accompanying map will make this clear. The small portion of Connecticut within fifty miles of New York is left out, as it is adequately covered by a recent report on the birds of the State, and because no students with New York affiliations go there or reside there. That portion of New York State on both banks of the Hudson River, which is excluded, is practically *terra incognita* ornithologically. No bird student of any attainments has ever worked in Putnam County, and it is fifty years since any intensive work has been done in either Orange or Rockland Counties. In New Jersey the area has also been reduced by the elimination of the coast, such parts of the Pine Barrens as lie within fifty miles, and the Princeton section. The two latter belong more properly to the territory of the Delaware Valley Ornithological Club. New York students rarely visit them and know little about them. As a result of these changes all records from Connecticut, the Hudson Highlands, Princeton and other excluded portions of New Jersey, which were given in Chapman's List, are here omitted.

THE LIFE ZONES OF THE REGION

In spite of the relatively small size of the Region as delimited above, it is remarkably diversified, and birds are surprisingly abundant. With the exception of high mountains and deserts, almost every type of habitat calculated to attract birds is found locally, and the coast line and the Hudson River Valley are well known highways of migration. It remains to be determined whether the Delaware Valley and the Kittatiny Ridge on our western boundary is not another highway of migration. In spite of the presence of one of the largest cities of the world, with a large suburban area, and even more distant summer resorts, there is a large amount of unspoiled and relatively untouched country still remaining.

The great variety of bird-life in this vicinity, however, is not so much due to natural advantages of habitat and the fact that migratory hosts pass through twice each year, as to certain other more fundamental causes. It is a curious fact, as yet but partly understood, that groups of species of animals and plants range over almost identical areas, and are not found, at least in the breeding season, either north or south of limits which are definable with a fair degree of accuracy. Whatever the natural causes may be that govern the ranges of these species, they are taken as indices of natural life zones or faunal areas. The change from one faunal area to another is, of course, a gradual one, except where high mountains cause a rapid change in temperature and climate with the change in altitude. In relatively level country no sharp lines of demarcation can be drawn, and between any two faunal areas a neutral zone will exist in which occur species characteristic of each. The New York City Region happens to be situated in territory occupied or touched by three different life zones. The Upper Austral or Carolinian Zone reaches its northern limit in parts of our area, or extends but little beyond it along the coast and up the Hudson River Valley.

Most of our breeding birds belong to the Alleghanian or Transition Zone, and in the highest parts of northwestern New Jersey there is a trace at least of the Canadian Zone.

Twenty-five years ago the limits of these faunas in our Region could be stated with a fair degree of definiteness on existing information. Unfortunately, the much more detailed knowledge of the exact distribution of our breeding birds at the present time has tended to make these lines of demarcation more obscure, so that many local students are beginning to find life zones a difficulty rather than an aid in their work. While it is true that the number of apparent exceptions has greatly increased, the causes back of these exceptions are yet to be determined. I know of no more interesting field for local research. Again it is beyond dispute that the boundaries of life zones correspond in a general way with lines of equal temperature. But in so small an area as this, differences of climate are scarcely perceivable. Let no one suppose that there is any marked difference in climate between those parts of our Region which may be regarded as Carolinian and those which are Alleghanian. What is true is that any territory which is definitely in any life zone lies in between two isothermal lines (lines of equal temperature). This Region being largely neutral territory, as explained above, does not possess a well-marked isothermal line dividing it into two parts. The exigencies of space forbid further discussion here. The situation is particularly complicated, as a local problem, but this complication must not be construed as invalidating the concept of life zones.

I. The Carolinian or Upper Austral Zone. The following birds are generally regarded as Carolinian species, and occur more or less regularly in our area. Their exact status can be found in detail in the annotated list. While all of them were formerly believed to reach their normal northern limits as breeding birds in this Region, this is now known to be the case only with those marked with an asterisk (*).

*Clapper Rail	Worm-eating Warbler
*King Rail	Blue-winged Warbler
*Turkey Vulture	Louisiana Water-thrush
Barn Owl	*Kentucky Warbler
Acadian Flycatcher	Hooded Warbler
Fish Crow	Mockingbird (formerly)
*Cardinal	Carolina Wren
Rough-winged Swallow	*Tufted Titmouse

This life Zone is the most difficult to interpret in our area. If the presence of one of these species be taken as an index of the zone, no part of it is entirely outside or north of it. On the other hand, in no one section of the Region do a majority of these species occur or constitute a dominant part of the avifauna. Finally the distribution of no two species is exactly alike. It is therefore evident that there is no more than a faint tinge of the Carolinian Zone in this territory, and that the causes limiting the distribution of any one species are peculiar to it, rather than of general or wide scope. The dominant cause with the Carolina Wren is the severity of the winter. The causes or factors limiting the other species are still a matter for research.

Much has been said in recent years about the northward extension of this Life Zone. I find no satisfactory evidence of it in this territory, with the single exception of the Tufted Titmouse, which has gained a few miles in New Jersey. While it is quite true that most of these birds are now known to range further northward, notably in the Hudson River valley, this may well be due to the fact that competent observers now exist at points where formerly there were few or none. When this all-important factor is considered, many alleged increases or extensions require confirmation or have been shown to be fictitious. Consequently I do not deny any such extension locally, but it cannot be stated as a fact. On the other hand there is definite evidence that most of these Carolinian birds have decreased in the last twenty-five years. The details will be found in the annotated list. With

most of the species concerned, the cause is obviously the interference of man. The disappearance of the Acadian Flycatcher however, cannot be ascribed wholly to this cause. If Giraud's statements, written in 1842, can be credited, the decrease of Carolinian species has been going on ever since then. The Red-bellied Woodpecker, which is now of accidental occurrence, was formerly a permanent resident on Long Island. I cite this, one of several southern species which have completely disappeared from our region, because the interference of man cannot reasonably be advanced to explain it. Unfortunately the accurate and detailed data of the present did not exist in the past, and this interesting question can never be settled definitely.

II. The Alleghanian or Transition Zone. It can readily be inferred from the foregoing, that the southern limit of this Zone is approximately reached in this region. The following species, at sea-level, reach their southern breeding limit here or but little south of us:

Carolina Rail	Rose-breasted Grosbeak
Alder Flycatcher	Purple Finch
Least Flycatcher	Golden-winged Warbler
Bobolink	Chestnut-sided Warbler
Savannah Sparrow	Black-throated Green Warbler
	Wilson's Thrush

As with the Carolinian birds, there is much still to be learned of the factors limiting the southward extension of these species. The majority, however, are rare or absent on the coastal plain of Long Island and Staten Island, which is a more definite statement than is possible for the northern limits of the Carolinian species. Most of them also increase northward, as might be expected, but the Purple Finch and Savannah Sparrow do not, for which there is no available explanation. The Black-throated Green Warbler is very irregularly distributed, and turns up in three distinct habitats, with different associations of species and radically different



PLATE II. GOLDFINCH

Courtesy of the National Association of Audubon Societies

floras. These three groups of Alleghanian species must have three different sets of causes limiting their distribution. They await satisfactory determination.

III. The Canadian Zone. Due principally to the recent investigations of Mr. W. DeW. Miller in extreme northern and northwestern New Jersey, a distinctly Canadian element has been found, especially in the high-forested plateau between Bearfort and Wawayanda Mountains, where the altitude varies from 1200–1400 feet. This element appears in many other swamps and bogs of Sussex County. It is quite possible that other species may yet be found, and undoubtedly many new stations for the known species remain to be discovered. Not even half the likely country has been visited, and none of it has been thoroughly studied. The following species are characteristic of the Canadian Zone. Those whose breeding is regarded as casual are omitted.

?Wilson's Snipe	Blackburnian Warbler
?Solitary Vireo	Northern Water-thrush
Nashville Warbler	Canadian Warbler
Black-throated Blue Warbler	Brown Creeper
?Magnolia Warbler	Hermit Thrush

It seems curious that the distribution of these Canadian forms in our territory is the most normal and the least anomalous. The Hermit Thrush, however, nests commonly in the hottest and driest pine-barrens of Long Island, and it is very rare in the one section where all the other species occur. The others require no comment. Anyone who has had field experience in the heart of the Canadian Zone would immediately understand their occurrence in the region where they are found. It is astonishing, however, to find the Hooded, Golden-winged, and Canadian Warblers equally abundant in the same swamp, and to find all three *disappearing southward* at the same rate. When it is realized that they are taken as indices of three different life-zones, it is evident that their occurrence together cannot be explained by isothermal lines.

SEASONAL VARIATION IN BIRD-LIFE

The bird-life of our vicinity varies widely during the course of a year. A few are always present. Others nest and then retire southward; others come in winter only, and still others pass through twice each year to and from southern winter quarters and northern summer homes. Many of them, however, do not fit into any of these groups with any degree of definiteness, and others are in different groups in different parts of the territory. I have not, therefore, adhered to strict definitions of terms, but have consulted utility, putting each species in that group in which it belongs either in the greatest extent of territory or in the greatest numbers. Thus the Hermit Thrush is technically a permanent resident, as it is undoubtedly present somewhere at every season. But in no one locality will this be true, except casually, so it is classed as a transient, as under this head it is known to the majority of students and is most abundant. In many cases, the inclusion of a species in any particular group must be quite arbitrary. There is no answer, for instance, to the question: when does a summer resident become a permanent resident? Every possible stage of intergradation occurs. Mr. J. T. Nichols' opinion has been of assistance in many of these doubtful cases.

I. Permanent Residents. This group includes species regularly present throughout the year. Some, like the Bob-white, Ruffed Grouse, and certain Owls, are doubtless strictly non-migratory. The majority, however, do migrate, and it is probable that wintering individuals come from further north, replacing breeding individuals who retire southward. Bird-banding, now happily gaining rapidly in popularity, can alone definitely answer this question.

LIST OF PERMANENT RESIDENTS

+ *Herring Gull	— Downy Woodpecker
+ *Black Duck	— Pileated Woodpecker
— Bob-white	† Red-headed Woodpecker
— Pheasant	✓† Flicker
— Ruffed Grouse	— Blue Jay
+ *Marsh Hawk	— Crow
— *Red-tailed Hawk	† Fish Crow
— Red-shouldered Hawk	— Starling
+ *Bald Eagle	✓† Meadowlark
— Duck Hawk	— House Sparrow
— Sparrow Hawk	✓† Goldfinch
— Barn Owl	+† Field Sparrow
*Long-eared Owl	—† Song Sparrow
*Short-eared Owl	+† Swamp Sparrow
— Barred Owl	— Cardinal
— Screech Owl	— Carolina Wren
— Great Horned Owl	— White-breasted Nuthatch
— Hairy Woodpecker	— Tufted Titmouse
	— Chickadee

*More common in winter or as a transient.

†More common in summer.

II. Summer Residents. This term is applied to the large group of birds which arrive from the south in spring, nest within our limits and retire southward again in the fall. They may arrive in March and remain until December, as do the Woodcock and Blackbirds, or like the Orchard Oriole, they may arrive in May and leave in August. Some occasionally spend the winter, and might thus qualify as permanent residents. Others are comparatively rare, and are common or generally distributed only during migration.

LIST OF SUMMER RESIDENTS

*Common Tern	† Black-crowned Night Heron
*Roseate Tern	*? King Rail
✓ *Wood Duck	— Clapper Rail
— American Bittern	✓ Virginia Rail
*Least Bittern	*? Little Black Rail
✓ Green Heron	*Florida Gallinule

16-cs. Kuyper 1 on 112.

LIST OF SUMMER RESIDENTS (*Continued*)

- | | |
|------------------------|--------------------------------|
| Woodcock | ✓*Henslow's Sparrow |
| *Upland Plover | ✓Grasshopper Sparrow |
| ✓Spotted Sandpiper | Sharp-tailed Sparrow |
| —Killdeer | Seaside Sparrow |
| Piping Plover | —Chipping Sparrow |
| —Mourning Dove | ✓Towhee |
| —Turkey Vulture | Bank Swallow |
| ‡†Sharp-shinned Hawk | —Rough-winged Swallow |
| ‡†Cooper's Hawk | ‡†Cedar Waxwing |
| Broad-winged Hawk | Red-eyed Vireo |
| —†Fish Hawk | Warbling Vireo |
| Yellow-billed Cuckoo | Yellow-throated Vireo |
| Black-billed Cuckoo | White-eyed Vireo |
| —†Kingfisher | —Black and White Warbler |
| Whippoorwill | Worm-eating Warbler |
| Nighthawk | Blue-winged Warbler |
| ✓Chimney Swift | Golden-winged Warbler |
| Hummingbird | †Parula Warbler |
| ✓Kingbird | Yellow Warbler |
| Crested Flycatcher | ✓Chestnut-sided Warbler |
| —Phoebe | ✓†Black-throated Green Warbler |
| Wood Pewee | Pine Warbler |
| *Acadian Flycatcher | Prairie Warbler |
| *Alder Flycatcher | ✓Ovenbird |
| ✓Least Flycatcher | —Louisiana Water-thrush |
| ✓Bobolink | *Kentucky Warbler |
| —Cowbird | ✓Maryland Yellowthroat |
| —†Red-winged Blackbird | Yellow-breasted Chat |
| Orchard Oriole | Hooded Warbler |
| Baltimore Oriole | ✓Redstart |
| —Purple Grackle | ✓Catbird |
| —Vesper Sparrow | ✓Brown Thrasher |
| Rose-breasted Grosbeak | ✓House Wren |
| Indigo Bunting | *Short-billed Marsh Wren |
| *Scarlet Tanager | Long-billed Marsh Wren |
| *Purple Martin | ✓Wood Thrush |
| Cliff Swallow | Veery |
| —Barn Swallow | —†Robin |
| | —‡Bluebird |

*Rare or local.

†Occurring chiefly as a transient.

‡Occasionally wintering.

III. **Summer Visitants.** The few species in this group are divisible into two classes. The Shearwaters and Petrels nest in the Antarctic Regions and spend their winter (our summer) in these latitudes. The two Herons wander north after their breeding season in the south is over.

LIST OF SUMMER VISITANTS

Cory's Shearwater	Wilson's Petrel
Greater Shearwater	American Egret
Sooty Shearwater	Little Blue Heron

IV. **Winter Visitants.** Birds which breed north of our limits and regularly spend the winter with us are winter visitants. As with the summer residents, they may arrive long before and remain until long after the actual winter season. The Junco, for example, arrives from the north in September and remains until May, but is a typical winter visitant.

LIST OF WINTER VISITANTS

Holboell's Grebe	King Eider
Horned Grebe	†American Scoter
Loon	†White-winged Scoter
*Red-throated Loon	†Surf Scoter
Kittiwake	Rough-legged Hawk
Glaucous Gull	Saw-whet Owl
Great Black-backed Gull	— Horned Lark
—†Herring Gull	Snowflake
*Ring-billed Gull	Ipswich Sparrow
American Merganser	+*White-throated Sparrow
Red-breasted Merganser	— Tree Sparrow
Scaup Duck	— Junco
Golden-eye	+*Myrtle Warbler
Bufflehead	†Brown Creeper
Old-squaw	Golden-crowned Kinglet

*Usually commonest as a transient.

†Summering, or breeding very locally.

V. **Irregular Winter Visitants.** The birds in this group visit us at irregular intervals. Some, like the Shrike, are

reported three winters out of five; others are much rarer, and like the Pine Grosbeak, are unrecorded in this Region for ten years or more at a time.

LIST OF IRREGULAR WINTER VISITANTS

Puffin	Goshawk
Black Guillemot	Snowy Owl
Brunnich's Murre	?Prairie Horned Lark (breeds)
Razor-billed Auk	Evening Grosbeak
Dovekie	Pine Grosbeak
Iceland Gull	American Crossbill
Cormorant	White-winged Crossbill
Harlequin Duck	Redpoll
American Eider	Lapland Longspur
Purple Sandpiper	— Northern Shrike

VI. **Regular Transients.** Birds which winter south of our limits, breed north of us, and pass through our territory in spring and fall, are transients. The regular transients occur every year. A few of them breed very locally, and others winter very locally or occasionally. These exceptional cases, however, are always much more abundant and widely distributed as transients, and are consequently included here.

LIST OF REGULAR TRANSIENTS

— *Pied-billed Grebe	Ruddy Duck
*Laughing Gull	— †Canada Goose
†Bonaparte's Gull	†Brant
*Least Tern	— †Great Blue Heron
Black Tern	*Sora
Gannet	Yellow Rail
Double-crested Cormorant	*Coot
— Hooded Merganser	Northern Phalarope
— †Mallard	†Wilson's Snipe
Baldpate	Dowitcher
Green-winged Teal	Knot
Blue-winged Teal	Pectoral Sandpiper
Pintail	White-rumped Sandpiper
Redhead	Least Sandpiper
†Lesser Scaup Duck	Red-backed Sandpiper

LIST OF REGULAR TRANSIENTS (*Continued*)wa-th

Semipalmated Sandpiper	Solitary Vireo
†Sanderling	*Nashville Warbler
Greater Yellowlegs	Tennessee Warbler
Lesser Yellowlegs	Cape May Warbler
— Solitary Sandpiper	*Black-throated Blue Warbler
Willet	Magnolia Warbler
Hudsonian Curlew	Bay-breasted Warbler
Black-bellied Plover	*Blackburnian Warbler
Golden Plover	Blackpoll Warbler
Semipalmated Plover	Palm Warbler
Ruddy Turnstone	— Yellow Palm Warbler
Pigeon Hawk	*Water-Thrush
— †Sapsucker	Connecticut Warbler
Olive-sided Flycatcher	Mourning Warbler
Yellow-bellied Flycatcher	Canadian Warbler
— †Rusty Blackbird	Wilson's Warbler
†Bronzed Grackle	Pipit
— Purple Finch	†Winter Wren
*†Savannah Sparrow	†Red-breasted Nuthatch
Acadian Sharp-tail	— Ruby-crowned Kinglet
— White-crowned Sparrow	Gray-cheeked Thrush
— Lincoln's Sparrow	Bicknell's Thrush
— †Fox Sparrow	Olive-backed Thrush
— *Tree Swallow	*Hermit Thrush
*Has bred or breeds locally.	
†Wintering locally or occasionally.	

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VII. Irregular Transients. As can be inferred from the name, irregular transients are those which apparently do not occur in our territory every year

LIST OF IRREGULAR TRANSIENTS

Pomarine Jaeger	†Stilt Sandpiper
Parasitic Jaeger	Baird's Sandpiper
Caspian Tern	†Western Sandpiper
?Leach's Petrel	Hudsonian Godwit
European Widgeon	Western Willet
Shoveller	Buff-breasted Sandpiper
Canvasback	?Pine Siskin
Long-billed Dowitcher	†*Nelson's Sharp-tail

LIST OF IRREGULAR TRANSIENTS (*Continued*)

Migrant Shrike	Orange-crowned Warbler
Philadelphia Vireo	*Mockingbird
	Gnatcatcher

*Winters occasionally.

†Sometimes numerous.

VIII. Casual Visitants. The species in this group occur only at very long intervals, and are all very rare birds in our territory. In some cases their regular migration route or home is not very far away; in other cases they have occurred here and elsewhere in the north-east too often to be regarded as accidental.

LIST OF CASUAL VISITANTS

Long-tailed Jaeger	Red Phalarope
Kumlien's Gull	Wilson's Phalarope
Arctic Tern	Marbled Godwit
Black Skimmer	Arkansas Kingbird
Gadwall	Lark Sparrow
Ring-necked Duck	Summer Tanager
Greater Snow Goose	Prothonotary Warbler
Whistling Swan	Cerulean Warbler
Yellow-crowned Night Heron	Labrador Chickadee

IX. Accidental Visitants. The homes of these birds are so far removed from our territory that their occurrence here is probably due in large part to storms, high winds, or a defective migratory instinct. The great majority have been captured in this vicinity once only.

LIST OF ACCIDENTAL VISITANTS

Pacific Loon	Audubon's Shearwater
Skua	Black-capped Petrel
Ivory Gull	Booby
Little Gull	White Pelican
Sabine's Gull	Brown Pelican
Royal Tern	Frigate Bird
Sooty Tern	European Teal
Fulmar	Barrow's Golden-eye
Mediterranean Shearwater	Lesser Snow Goose
Manx Shearwater	White-fronted Goose

LIST OF ACCIDENTAL VISITANTS (*Continued*)

Blue Goose	Great Gray Owl
Black Brant	Arctic Horned Owl
Barnacle Goose	Hawk Owl
White Ibis	Red-cockaded Woodpecker
Glossy Ibis	Arctic Three-toed Woodpecker
Wood Ibis	Red-bellied Woodpecker
Louisiana Heron	Gray Kingbird
Corn Crake	Raven
Purple Gallinule	Greater Redpoll
Avocet	Holboell's Redpoll
European Dunlin	Hoary Redpoll
Curlew Sandpiper	Chestnut-collared Longspur
Ruff	Baird's Sparrow
Long-billed Curlew	Bachman's Sparrow
Whimbrel	Blue Grosbeak
Lapwing	Lark Bunting
Wilson's Plover	Bohemian Waxwing
Black Vulture	Yellow-throated Warbler
Swallow-tailed Kite	Grinnell's Water-thrush
Swainson's Hawk	Hudsonian Chickadee
Golden Eagle	Townsend's Solitaire
Gyrfalcon	Varied Thrush
Black Gyrfalcon	Greenland Wheatear

X. Extinct and Extirpated Species. This list contains those species which were formerly a part of our avifauna. The Labrador Duck and Passenger Pigeon are extinct; the Eskimo Curlew is probably so, or very near it. The extirpated species survive in other parts of North America, but have not occurred in this area in many years. Should they subsequently do so, they should be transferred to the accidental visitants.

LIST OF EXTINCT AND EXTIRPATED SPECIES

Gull-billed Tern	Eskimo Curlew
Forster's Tern	Oyster-catcher
Labrador Duck	Heath Hen
Snowy Egret	Wild Turkey
Whooping Crane	Passenger Pigeon
Black-necked Stilt	Dickcissel

XI. The following species have been introduced in our vicinity from Europe. The Mute Swan has not as yet become definitely established. The introduction of the other three species can be pronounced a complete failure, and few if any individuals survive. None is counted in the summary.

INTRODUCED SPECIES, NOT ESTABLISHED

Mute Swan	Chaffinch
Skylark	European Goldfinch

XII. **Hypothetical Species.** Species whose occurrence in our area has been recorded, but where definite and positive evidence is lacking, are placed in this list. Three cases marked with an asterisk (*) are recent sight records, apparently reliable. Others are chiefly very old records of birds whose occurrence is now known to be highly improbable, and where this fact was not realized at the time. In other cases the bird captured was possibly an escaped cage-bird. All are discussed in detail in the proper place, and all should be removed from the list of New York State birds.

LIST OF HYPOTHETICAL SPECIES

*Western Grebe	Ground Dove
Great Auk	*White Gyrfalcon
Cabot's Tern	Burrowing Owl
Trudeau's Tern	*American Three-toed Wood-
Rufous-crested Duck	pecker
Hutchin's Goose	Hoyt's Horned Lark
European Curlew	Painted Bunting

SUMMARY

Permanent Residents.....	37
Summer Residents.....	89
Summer Visitants.....	6
Winter Visitants.....	30
Irregular Winter Visitants.....	20
Regular Transients.....	78
Irregular Transients.....	21
Casual Visitants.....	18
Accidental Visitants.....	66
Extinct and Extirpated Species.....	12
Total.....	377

Dr. Chapman's List enumerated 353 species and subspecies. Of these, four are here removed to the hypothetical list, and three more, the European Woodcock, Louisiana Tanager, and Carolina Chickadee occurred in territory now extralimital. The additional thirty species are chiefly accidental visitants, the majority recorded from eastern Long Island (beyond the fifty mile limit) before the publication of his list. Ten species only have been added since 1910, and three of these additions are based on old specimens, now correctly determined. The Western Willet is the only form obviously not of accidental occurrence. The addition, however, of a few more accidental visitants, is of no real importance. The actual measure of progress in knowledge which has taken place is, perhaps, best found in the fact that nearly one-third of our local species appear in a different group from that in which they were placed in Dr. Chapman's list. Again the discovery of several Canadian Zone species breeding in New Jersey is of far greater scientific value than the recording of all 66 accidental visitants.

THE MIGRATIONS AND MOVEMENTS OF LOCAL BIRDS

The fact that there is seasonal variation in bird-life means that only a part of the 377 species which have been recorded from this vicinity are present in any one season or month, or are likely to occur. Within general limits every bird, other than the ever-present Permanent Residents, has an appointed time for arriving and departing. It is idle to look for Warblers in January or Ducks in July. Not only must we know that a given species is a transient in order to make its acquaintance; we must also know in what part of the spring and fall it passes through, or we are certain to miss it.

There are perhaps only a few weeks in the year when some bird or birds are not moving north or south in our territory. Bird-life is unquestionably at its minimum, however, in **January** and **February**, and is composed of the permanent

residents and the winter visitants. The interest afield at this season is the hope of finding some of the rare and irregular winter visitants, or some belated summer resident or transient which has attempted to brave the winter storms. There is always movement, even when there is no migration in the technical sense. Many species or individuals present in early January disappear in February, forced to move elsewhere by the exhaustion of their food supply. On the seacoast every severe cold wave brings a sudden rush of water-fowl, frozen out of more favorable quarters elsewhere. These disappear when the weather moderates. In late February the first harbinger of spring, the Canada Goose, frequently arrives at the eastern end of Long Island.

No matter how backward the season, **March** is certain to witness a general northward movement of birds. In the following discussion the rarer species are omitted. As soon as the ice leaves our bays, ponds and marshes, Ducks and Geese will appear. With the first heavy thaw, the earliest group of land-birds will take possession of the country. These are:

(Feb. 15–March 15)

- | | |
|------------------------|------------------|
| ✓ Meadowlark | ✓ Purple Grackle |
| ✓ Red-winged Blackbird | ✓ Fox Sparrow |
| ✓ Rusty Blackbird | ✓ Robin |
| | ✓ Bluebird |

There is almost a month's variation in the arrival of this wave, according to season. In 1909 it took place the middle of February. Later in March there is a second distinct group of migrants, which takes place between the 10th and the 25th. It is exceptional for any of the species in this group to arrive in February, and it is also exceptional for the majority of them to arrive on any one day in this period. They are

(March 10–March 25)

- | | |
|-------------------|------------------|
| Gannet — | ✓ Turkey Vulture |
| Green-winged Teal | ✓ Kingfisher |

✓ Wood Duck
 ✓ Woodcock
 ✓ Killdeer
 ✓ Mourning Dove

✓ Phoebe
 ✓ Fish Crow —
 ✓ Cowbird
 ✓ Pipit

The last few days of the month often bring no new arrivals, but increasing numbers of those species already on the move. By the end of the month the rarer winter visitants and those which arrive last in the fall, such as the Snowflake and Horned Lark, have usually completely disappeared.

In early **April** the pronounced developments in the vegetable and insect worlds bring our first Warblers and other species largely dependent upon insects for food. They often arrive in a marked "wave," which is usually between the 7th and the 12th. Occasionally in very mild and advanced seasons half the species of this group arrive the last days of March, and the balance perhaps before April 7th. The following species belong in the early April group:

(March 25–April 12)

✓ Pied-billed Grebe
 ✓ Double-crested Cormorant
 ✓ Blue-winged Teal
 ✓ Great Blue Heron
 ✓ Wilson's Snipe
 ✓ Piping Plover
 ✓ Osprey
 ✓ Noddy
 ✓ Vesper Sparrow

✓ Savannah Sparrow
 ✓ White-throated Sparrow
 ✓ Chipping Sparrow
 ✓ Field Sparrow
 ✓ Swamp Sparrow
 ✓ Tree Swallow
 ✓ Yellow Palm Warbler
 ✓ Pine Warbler
 ✓ Ruby-crowned Kinglet

Hermit Thrush

The balance of the month is the most difficult period of the spring migration to describe, as it often breaks the rule that as the season advances more species arrive in proportion over a given space of time. Between the 17th and the 25th the following species appear, but I have never known them to appear together. At the same time the numbers of the early April migrants are greatly increased, and the migration of the fresh-water ducks is concluded.

(April 17–April 25)

Bittern	Blue-headed Vireo
Night Heron	✓ Black and White Warbler
Clapper Rail	✓ Myrtle Warbler
✓ Virginia Rail	✓ Black-throated Green Warbler
✓ Towhee	✓ Louisiana Water-thrush
✓ Barn Swallow	✓ Brown Thrasher

While it is most exceptional for one of these species not to arrive in April, they are the only ones which can be counted upon. In six years out of ten, however, there is a third movement between April 25th and 30th, bringing the majority of the following species:

(April 25–April 30)

✓ Green Heron	Purple Martin
Greater Yellowlegs	Cliff Swallow
✓ Spotted Sandpiper	Bank Swallow
Broad-winged Hawk	✓ Rough-winged Swallow
Whippoorwill	Yellow Warbler
✓ Chimney Swift	✓ House Wren

May is the star month of the year for the bird-lover. The migration becomes more marked and continuous. A vast horde of birds flood the countryside and pour overhead at night, their calls coming to us from the sky. A rise in temperature and a light southerly wind is apt to bring a great “wave.” As many as a dozen new species will arrive overnight. A drop in temperature, cold rain, or strong northerly or easterly winds are equally certain to bring a lull in migration. Five distinct groups of species can be distinguished during the month, but climatic factors will often bring about a totally different story for any given season. As a general rule the following species arrive between May 2nd and May 7th, and a “wave” usually occurs in this period bringing the majority of them with it. Those marked with an asterisk (*) occasionally arrive the last days of April. The balance are casual in April, but in the remarkable spring of 1914 the majority arrived on April 29th and 30th:

(May 2–May 7)

✓ Solitary Sandpiper
 *Pigeon Hawk
 Hummingbird
 ✓ Kingbird
 Crested Flycatcher
 ✓ *Least Flycatcher
 Baltimore Oriole
 Orchard Oriole
 ✓ *Grasshopper Sparrow
 Rose-breasted Grosbeak
 Tanager
 Warbling Vireo
 Yellow-throated Vireo
 White-eyed Vireo

Nashville Warbler
 Blue-winged Warbler
 Parula Warbler
 Black-throated Blue Warbler
 Chestnut-sided Warbler
 *Prairie Warbler
 *Northern Water-Thrush
 Hooded Warbler
 ✓ *Northern Yellowthroat
 ✓ *Ovenbird
 ✓ *Redstart
 ✓ *Catbird
 ✓ *Wood Thrush
 Veery

Between May 9th and May 12th there is often another well-marked “wave.” During this period a few species arrive with great regularity. In backward seasons many of the species in the last list do not arrive until this “wave,” which brings:

(May 9–May 12)

Acadian Flycatcher
 Red-eyed Vireo
 Worm-eating Warbler
 Magnolia Warbler

Blackburnian Warbler
 Chat
 Canadian Warbler
 Olive-backed Thrush

The third “wave” of the month usually takes place between May 10th and May 14th. It is eagerly awaited by the field student, as it is one of the two chief opportunities of finding the rarer species. The following commonly arrive at this time:

(May 10–May 14)

Nighthawk
 ✓ Bobolink
 ✓ White-crowned Sparrow
 Lincoln’s Sparrow
 Golden-winged Warbler
 Tennessee Warbler

Cape May Warbler
 Bay-breasted Warbler
 Blackpoll Warbler
 Wilson’s Warbler
 Long-billed Marsh Wren
 Gray-cheeked Thrush

The fourth "wave" of the season is what is technically known as the "height of the migration," and takes place chiefly between May 16th and May 19th. If all goes well, and the season is normal, the maximum number of birds is present at this time, and those who are so fortunate as to be afield the day when this "wave" arrives, have recorded 100 or more species. It will bring the birds listed below, plus any in the earlier groups which have not yet appeared:

(May 10-May 19)

Yellow-billed Cuckoo

Wood Pewee

Black-billed Cuckoo

Indigo Bunting

Cedar Waxwing

The above summary may be described as the normal or ideal May migration. As there are obviously an infinite number of combinations of weather and temperature which can occur in 19 days, it follows that this ideal migration rarely takes place without more or less extensive modifications. It must be remembered that a "wave" is usually due to unfavorable weather damming the flood of birds moving northward for several days. A change to ideal conditions means an opportunity which the delayed host immediately seizes, and it rushes forward *en masse*. However, should the unfavorable weather continue over a protracted period, two or more "waves" are telescoped, the species arriving irregularly and in small numbers at a time. Long-continued ideal weather may have exactly the same result. Birds move forward every night throughout the period, and on no one day is there a sufficiently marked concentration to be called a "wave." Such seasons of both classes are particularly unsatisfactory and disappointing to the observer, who usually misses most if not all of the rarer transients, which as a rule are only recorded on days when other birds are particularly abundant. Perhaps the table below, giving days of the month on which "waves" have arrived during 12 years in Central Park, based on my own daily observation, will give a better idea of the

possible variation than pages of comment. It is just this variation and the resulting uncertainty, however, which makes the period so fascinating. The birds in group 5 are included for the sake of completeness. They are discussed further on.

	Group 1	2	3	4	5
1907		Chiefly 18	18	23	29
1908	2	9	13	?	?
1909	4	11	15	19	24 and 25
1910		11	17	20	25
1911	2 and 3	..	11	16	17
1912	4	9	11	15	?
1913	4, 5	5 and 13	16	18	23 and 26
1914	Apr. 29, 30, May 4	6 and 11	11 and 12	14 and 17	Chiefly 17
1919	Chiefly 6	6	6 and 14	18	?
1920		11	16	..	22
1921	10	14	14	..	..
1922		7	7 and 10	Chiefly 10	..

A little study of this table will show that 1907 was the coldest spring on record, and there was practically no migration until May 18. The spring of 1922 was also an exceedingly poor year, as the weather was exceptionally favorable throughout the month, and there were only two days on which birds were at all abundant. The years 1913 and 1914 were remarkable in the number of great "waves" of birds, but in both years a spell of cold rainy weather suspended migration, and caused a long delay in the complete arrival of the species in Group 2.

It will now be evident that there is no such thing as an average arrival date for any species. Such a date can, of course, be calculated arithmetically, but it will be of no particular service, if not positively misleading. In another place I hope to discuss the matter more fully. Suffice it here to say that selecting any species at random and calculating

its average date of arrival for the twelve years under discussion, the date of arrival each year will in the great majority of cases not coincide with such an average date. If this be true of May birds, it is much more true of the earlier spring migrants, which sometimes arrive on dates two weeks or even a month apart in two successive years. For this reason arrival dates have been given in the annotated list in great detail, and every precaution has been taken to convince the student that there is nothing fixed in the migration of our local birds. Not a season has passed without breaking the arrival or departure record of some species, and it is scarcely conceivable that such a season will occur. If the very earliest or the very latest spring arrival dates be considered, not a single statement for any species in the preceding discussion would be strictly true. The most that can be done, therefore, is to say of a species that it belongs in a group which *usually* arrives between certain limits. Any more specific statement is not warranted by the facts, and is more misleading than helpful.

After the height of the migration, birds fall off very rapidly in numbers, but there is often a "wave" between the 22nd and 26th. This is the "wave" of female Warblers. The Blackpoll, Bay-breasted, Magnolia and Canadian Warblers become common, as do the transient thrushes. The late arriving summer residents, such as the Wood Pewee and Red-eyed Vireo, now become common. A very few new species also appear at this time. It is exceptional when they arrive with Group 4.

(May 15-May 26)

Olive-sided Flycatcher
Yellow-bellied Flycatcher
Alder Flycatcher

Kentucky Warbler
Mourning Warbler
?Short-billed Marsh Wren

Nothing has so far been said about the bird-life of May at the seashore. During the month the last waterfowl disappear, the Laughing Gull, Terns and Shore-birds arrive. They are, however, exceedingly irregular, and their migra-

tion does not correspond with that of the other transients inland. That is to say, a wave of Warblers inland does not mean that there has been a flight of sea birds on the coast. In fact, with the Shore-birds, a flight is caused by diametrically opposite reasons. Cold weather and easterly gales cause these more powerful fliers to alight, when they would otherwise fly by without stopping. Of passerine birds, the Seaside and Sharp-tailed Sparrows arrive early in the month, and the Acadian Sharp-tailed Sparrow has the distinction of being the very last land-bird to arrive in this region.

In **June** the great majority of our local birds are nesting and are absorbed with the cares of raising a family. A few Black-poll Warblers linger regularly during the first week of the month, but in very backward seasons, such as 1907, a considerable number of transients have been recorded. On the coast, however, Loons, Cormorants, the Laughing Gull, the Terns and most of the Shore birds remain until the middle of the month. About this time the summer visitant Petrels and Shearwaters arrive. Inland, certain species have finished nesting, and like Starlings and Grackles, gather in flocks and commence wandering around the country. In **July** the breeding season begins to wane. The song season is rapidly concluded with most species, which begin to moult, and consequently become hard to find. A few, such as the Orchard Oriole and Kentucky Warbler, disappear completely during the month. First Tree and later Barn Swallows appear in great numbers in the coastal marshes, and the Solitary Sandpiper arrives from the north. On the coast the Shore-bird migration starts regularly the first week in July, and is well under way by the end of the month. Laughing Gulls and Terns also appear, as well as the summer visitant Egrets and Herons from the south.

No month of the year more sorely tries the patience of the bird-lover than **August**. The retiring habits of moulting individuals and the gradual disappearance for good of many

summer residents greatly outweighs the accessions from the north in the way of new species. Many summer residents are now on the move, but this is difficult to detect except in places where they do not breed. Species, however, such as the Worm-eating and Golden-winged Warblers, which are rare as transients, are more often recorded in this month. Those birds which regularly arrive from the north are:

(Aug. 1–Aug. 30)

Great Blue Heron	Magnolia Warbler
Sora	Bay-breasted Warbler
Olive-sided Flycatcher	Blackburnian Warbler
Yellow-bellied Flycatcher	Northern Water-Thrush
Golden-winged Warbler	Mourning Warbler
Tennessee Warbler	Wilson's Warbler
Cape May Warbler	Canadian Warbler
Red-breasted Nuthatch (irregular)	

Of these species, the Heron, Sora, Yellow-bellied Flycatcher, Water-thrush, and Canadian Warbler regularly arrive before August 15, the others usually not until after the 20th. Birds do not come in "waves" in August as they do in May. The migration of each species is extended over a much longer period, consequently fewer individuals are present on any one day, and a bird is often recorded less frequently in fall than in spring, in spite of the fact that the total number of individuals passing through is approximately the same. The absence of song, the change to a more obscure plumage, and the fact that the vegetation is at its maximum of luxuriance add to the difficulties of the student. It is by all odds the least known and the most interesting season of the year. On the coast the migration of Terns and Shore-birds reaches its maximum. The Loon, Cormorant, Ring-billed Gull and Jaegers arrive from the north.

The great apparent scarcity of birds in August is partially relieved in early **September**. More transients have arrived. The number of summer residents is also greatly reënforced by individuals appearing from more northern nesting grounds.

As a result, around September 10th it is possible to see as many as 80 species of birds in a day. After this date a considerable body of summer residents take their final departure and there is a general scarcity of bird-life, until the first cool snap of the month brings the second group of September transients together with the first of the winter visitants. The new arrivals in early September are:

(Sept. 1–Sept. 10)

Nashville Warbler	Blackpoll Warbler
Parula Warbler	Black-throated Green Warbler
Black-throated Blue Warbler	Connecticut Warbler

They are all occasionally recorded the last days of August. The second group is composed of the following species:

(Sept. 10–Sept. 20)

Wilson's Snipe	White-throated Sparrow
Broad-winged Hawk	Palm Warbler
Pigeon Hawk	Olive-backed Thrush

Some time between the 20th and the 30th there is usually a frost attended with high northwest winds. This causes a "wave" of the third group of the month's transients. Birds are now as abundant individually as in May, but the number of species is much less. The arrival of this group is practically synchronous with the departure of many summer residents and the majority of the early August transients.

(Sept. 20–Sept. 30)

Coot	Yellow Palm Warbler
Savannah Sparrow	Brown Creeper
Junco	Golden-crowned Kinglet
Lincoln's Sparrow	Ruby-crowned Kinglet
Myrtle Warbler	Gray-cheeked Thrush

With the commencement of **October** the migration becomes so irregular and so dependent upon the weather, that it is almost impossible to make any general statement. One might as well predict a frost or a spell of warm weather as state the arrival or departure of any given species. The most vital factor is, of course, a killing frost, which clears out nearly

all the insectivorous species, whether summer residents or transients. In mild seasons a maximum of bird-life is reached between the 4th and 13th; the normal transient host is reinforced by lingering summer residents and the earlier transients such as Warblers. Should a frost then ensue, a big "wave" occurs, and 80 species can be recorded in a day. Such a fortunate combination occurs about once in five years. Just as in May, continued warm weather means that birds are relatively scarce, and no marked flights occur. Apparently the birds move south anyhow, and sudden cold weather merely serves to hasten their departure in a body. The Pipit, Winter Wren, Rusty Blackbird, Solitary Vireo, and White-crowned Sparrow arrive regularly early in October. The Fox Sparrow and Hermit Thrush always arrive on the heels of the first hard frost, which in recent years at least has never been later than the 20th. After this date the bird-life of the month is practically the same as that of March, plus those species of the earlier April groups, which are not purely insectivorous. These latter linger until the end of the month or the first days of November, when the Tree Sparrow arrives. During this period the most abundant birds are the Sparrows, which throng the countryside in countless numbers.

There is a second factor, however, which is obvious to those who have carefully followed the migration both spring and fall for a sufficient number of years. There can be no question of the fact that an early or a late fall migration is somewhat dependent upon that of the preceding spring, provided that the summer has not been abnormal or that the fall is not abnormally cold. Two excellent illustrations of this are at hand. The spring of 1907 was the latest on record, and many species were reported in October, never before or since reported, while many remained later in the month than ever before or since. The fact that the relative mildness of the month that year had little or nothing to do with it, is proved by the past fall (1922), in which the months of

September and October broke all records for heat and exceptional warmth. Those who supposed that our birds would linger later than ever before were sadly deceived. The spring migration of 1922 was concluded earlier than any other on record. Perhaps the birds started nesting and finished breeding earlier than usual. I was in Central Park almost every day from August 9th to October 15th. I have never known the summer residents to disappear so early, and in only one previous year did the transients arrive earlier. It was astonishing to see Myrtle Warblers in August one month ahead of normal, to record all the early September transients in August, and to break the arrival record of the Yellow Palm Warbler on a blistering hot day in September, when I did not see a single individual of twenty summer residents which I might have expected to find in October. Oddly enough the earlier migration referred to above was the fall of 1921, which was also abnormally warm. Here perhaps the excessive drought in northern New England and eastern Canada may furnish a clue to the appearance of many transients and winter visitants earlier than ever previously recorded. If there seems to be some correspondence in the extreme seasons, it is equally true that a normal spring migration is followed by a normal fall migration, unless other exceptional factors happen to exist.

We may now turn our attention briefly to the bird-life of the coast, where the situation is almost the reverse of what it is inland. To my mind the dullest time of the year on the coast is the period between the middle of September, when the main southward movement of Shorebirds is over, until cold weather in late October or early November. The Scoters regularly arrive in this period, and individuals of other species are frequently recorded, but the main migration of the winter waterfowl and seabirds does not take place until really cold weather. As a result many species vary as much as two months in the time of their appearance. A period of maxi-

imum abundance is sometimes reached around October 25th, if cold weather brings many winter birds down early, which thus meet the migrating Sparrow host, and a large list is possible. Early in November the Horned Lark, Snowflake and Ipswich Sparrow appear, and at about the same time the Seaside and Sharp-tailed Sparrows depart.

Little need be said about the bird-life of **November** and **December**. The weather is the dominant factor. The species which arrived in March will remain until the conditions which caused their arrival are terminated by the approach of winter. The forming of ice, the hard freezing of the ground, or a fall of snow deprive them of their food supply, and they depart southward. The end of November marks the normal termination of their stay, but in very mild seasons many linger until Christmas. The waterfowl on the coast are, of course, hardier, and their migration is rarely concluded before January 1st. Many winter visitants do not arrive in bulk until after December 1st.

THE LOCAL REGIONS

The above discussion of the migrations of our local birds during the year holds true for the immediate vicinity of New York City. In the whole territory covered by this Handbook, however, slight differences in climate result in modifications of the statements made in those sections more remote from the City. Accordingly, as a further assistance to the student, the Region has been divided into three sections, Long Island, the balance of New York State, and New Jersey. In each of these three sections the status and migration of each species is given in detail. In addition one or more "Local Regions" are given under each section. These "Local Regions" are areas of relatively small extent, in which intensive observation over long periods of years has been conducted by numerous observers. The resulting local lists probably

cannot be exceeded in any section of the United States at all comparable in area and latitude. The records include the summer of 1922, but as many as possible were added later, up to December 1st inclusive. Exceptions are noted beyond.

Long Island. The best known section of the Region, with records going back 100 years. The long seacoast and the many bays give us our long list of water-birds, the majority of which are unknown elsewhere. The eastern end is by far the best for them. As a general rule they arrive from the north quite a bit earlier here than near New York City, and linger later, as the winter climate is distinctly milder, tempered by the relatively warm seas surrounding it. In the spring they arrive earlier and depart later. This is also true of certain land-birds that are preëminently coastal, such as the Horned Lark, Snowflake and Ipswich Sparrow. Long Island is, however, to the east of any main migratory highway of those transient land-birds which prefer rich woodland or its borders. Warblers, for instance, are distinctly less abundant on Long Island than in the Hudson River Valley or northern New Jersey, although they follow even the outer beaches. A total of 357 species are definitely and positively known to have occurred. The status of the Prairie Horned Lark and Bronzed Grackle still need careful determination, and the winter bird-life of Montauk Point will unquestionably repay long-continued observation. Mr. J. T. Nichols, who has devoted himself to the study of Long Island birds for many years, collated the data for the water-birds. Dr. E. R. P. Janvrin prepared a similar abstract for the land-birds. Mr. Nichols also carefully revised and checked the manuscript. My thanks for such great assistance is extended to both. Migration dates are given in considerable detail, but authority and locality is given only for those previously unpublished. Dates in brackets are regarded as casual. Three "Local Regions" will be found under Long Island as follows:

a. **Orient Region.** This Region includes the township of Southold from Laurel to Orient Point and Gardiner's Island. Mr. Roy Latham had prepared a report, based on his many years' observation up to January, 1921, for future publication, and has kindly permitted the Linnæan Society to use the important data it contains. The extraordinary abundance and variety of bird-life at Orient has already been made famous by Mr. Latham through his Christmas Censuses in Bird-Lore. Mr. Latham's report is here published practically verbatim. He records 283 species, and supplies much new information and many new records, hitherto unpublished. He is the authority for all statements and records not otherwise credited.

b. **Mastic Region.** An area of about five square miles situated on the south shore about the center of the island. The bird-life is typical of the coastal plain where untouched by summer resorts or tourist centers. The list is chiefly the intermittent observations of Mr. J. T. Nichols during the past twenty-five years, and he is responsible for all statements and records. Migration dates are of no particular significance in this locality and are largely omitted. A total of 227 species is recorded.

c. **Long Beach.** The nearest place to New York City where the bird-life of the seacoast can be studied to advantage. Its peculiar interest and value as a station, however, lies in the records for land-birds. The observations at Long Beach prove conclusively that the outer beaches are a migratory highway to some extent even for characteristically woodland birds. There is not a single tree on the beach, which boasts a few small patches of bay-berry as its best cover. Nevertheless most of the land-birds of Long Island have been recorded. Over one hundred species have been recorded in the shrubbery of one of the summer cottages, known to local students as the "Oasis." Long Beach is, therefore, one of our two stations for determining the extent of the migration of

summer resident and permanent resident land-birds, as the number breeding on the beach is exceedingly small. I am particularly indebted to Mr. E. P. Bicknell for preparing an abstract of his observations. He has visited the beach weekly throughout the year for over ten years, and has amassed an incomparable migration record. It is not too much to say that his observations exceed in value and completeness that of all other observers combined, and many experienced students have visited Long Beach frequently in the last fifteen years. Of far greater importance than the preparation of his report is Mr. Bicknell's generosity in permitting the use of his records, as he was planning separate publication. A total of 239 species is recorded.

New York State. For lack of a more convenient term, the balance of New York State is here referred to, including Staten Island, New York City, Bronx and Westchester Counties. It is here that the greatest changes for the worse have taken place. In recent years this is particularly true of Staten Island, which fifteen years ago was chiefly unspoiled country. It is now almost ruined for birds. The only rural country remaining in this section is in northern Westchester County, about the breeding birds of which we have little definite information at present. I am indebted to Mr. Courtenay Brandreth of Ossining for valuable notes on the water-birds of the Hudson, which excellently supplement those made by Dr. A. K. Fisher 50 to 30 years ago. In the time of Mearns and Fisher this river was a great highway for these birds. This is now a thing of the past, but many species still occur in fair numbers on the Tappan Zee. Northern Westchester County has a colder winter climate than New York City. As a result the fall migration in particular is concluded earlier, and several species, such as the White-throated Sparrow, are unknown there in winter, or casual, instead of regular. Migration dates are not given, unless they are better than those obtained in the "Local Regions," two of which will be found, as follows:

a. **Central Park.** Probably no locality in America has been visited so often, so regularly, and by so many people, as Central Park. It is an ideal station for studying the migration of birds, and is unquestionably the best place for the insectivorous transients in the Region. Astonishing as this statement may seem, it is amply justified by the facts, and Warblers, for instance, are more abundant here individually and specifically than anywhere else. It is an oasis in a vast desert of city roofs, in which the tired hosts must alight to rest as the day breaks, and where the great variety of shrubbery and trees affords an ample food supply and shelter. The Ramble, an area of about 2 acres between 72nd and 77th Streets, and particularly remote from the main carriage drives, is the best place. The great majority of the 186 species recorded from the Park have been seen here. The relatively small size of this list is explained by the almost total absence of water-birds. Many species are, of course, rare or casual, such as nearly all the permanent residents, and all species preferring aquatic or open country habitats. These birds have particularly decreased as transients in the last eight years, during which many trees and shrubs have died, reducing the available cover. The chief factor is, however, the great increase in the number of people using the Park. Ten years ago one could spend a whole morning in the Ramble, and scarcely see a soul. Now it is certain to be full of people after 10 o'clock, except in bad weather. As a result, the eighteen native species nesting in 1908 are now reduced to 8. In 1908, 22 species wintered, several in numbers. Last winter no native species were found. While this is regretted by those who have been Park enthusiasts for many years, it has if anything improved the Park as a station for migrating birds. *Every individual seen can be determined with certainty as a transient*, or is definitely known not to be one. As an example, I may take the Scarlet Tanager. In the country where it is a common summer resident, its arrival in spring

and its departure in fall can, of course, be determined. But it is quite impossible to determine with certainty that migrating individuals are passing through this Region in maximum numbers about May 16th and until May 25th, or that the species starts moving south in late August or early September. These questions can be answered in Central Park. Accordingly migration records are given in the greatest detail.

The decrease of birds mentioned above has not, however, affected the regular transients, which are as abundant as ever. Those who can possibly do so are advised to visit the Ramble as frequently as possible from April 1st to May 30th and from the first week in August to the end of October. If they are energetic enough they should go in the early morning, especially in May. Later in the day they are certain to miss many species, as the birds are scared and scattered by the crowds. Many days will of course be very barren, as nowadays there are practically no birds in between flights. On May 10, 1922, 66 species were observed in the Ramble, of which 60 were transients. It would be utterly impossible definitely to duplicate such a list of transients in one day anywhere else in the Region. Between the dates given above over one hundred species can be seen annually.

In the brief space available I cannot adequately describe the wealth of material, founded on *daily* observation, available for the present report. For instance, Miss Anne A. Crolius, a most reliable and conservative student, visited the Park more than 250 times annually between 1895 and 1915, a record of consistent observation probably unequalled in this country. Ever since 1907, when my observations commenced, dozens of observers have hunted in the Ramble every spring. The dozens last spring were totally different from the dozens eight years ago, and all were totally different people from the dozens in 1907, but while their interest lasted I saw most of them every day and collected the migration records of interest that I knew to be reliable. Every year

there have been those who kindly coöperated in my effort to obtain complete records, and who interrogated mutual acquaintances whom I missed, and handed on the information of interest.

b. **Bronx Region.** Includes the whole Borough of the Bronx and north to a line connecting Yonkers and New Rochelle. There has been less consistent observation here than in any other "Local Region," but it is becoming an increasingly popular stamping ground for bird-lovers, who are unable to go further afield. In spite of the fact that one-half of its area is now utterly unsuited for birds, and that no unspoiled country remains within its borders, the list of 227 species recorded shows how adaptable or how long-suffering are many species. The great majority of water-birds are now of rare occurrence, and the migration dates for many species are not at all representative. Mr. L. N. Nichols was of particular assistance in the preparation of this list. He is now the leader in this region, and abstracted not only his own notes, but all those of the present generation of local observers.

New Jersey. It is in northern New Jersey that the greatest variation in climate occurs in our Region. In the hill country of the northwestern sections, the winter is unquestionably colder than near the coast; it comes earlier, and spring is later. As a result the fall migration is concluded much earlier, and many species which winter regularly near Plainfield and the lowlands adjacent to the Hudson River Valley are unknown or casual further inland. On the other hand the summer climate is warmer, far removed from the tempering influence of cool ocean breezes. During a heat wave, for instance, the temperature is 5 to 10 degrees hotter in northern Sussex County than in New York City, where it is ten degrees warmer than at the eastern end of Long Island. During a cold wave in winter these figures are exactly reversed. Perhaps this is a partial explanation of the abundance of several Carolinian species in northwestern

New Jersey, and the more frequent occurrence there of the irregular winter visitants. As yet there is little or no detailed information of the migration in this remote section, some of which is still unvisited at any season of the year. Large areas are relatively difficult of access, and some primeval timber still remains. Discoveries of interest undoubtedly await those who will take the trouble to go there.

In most of the area observation is so incomplete compared with Englewood that migration dates are given only when better than those obtained at this station.

a. **Englewood Region.** This Region includes that section of Bergen County between Closter and Demarest on the north, Bogota, Palisades Park and Fort Lee on the south. Of the total of 232 species definitely recorded, 230 have been observed in a section near Englewood which an active man can cover in a day. Observation has been continuous for over 40 years. The best locality in the whole territory for freshwater ducks, excepting Gardiner's Island, is to be found in the marshes of Overpeck Creek. The low rich woodlands are the best place for Warblers, excepting only Central Park.

THE LOCAL COLLECTION

Those who are just beginning the study of our local birds are earnestly recommended to visit the Local Collection in the American Museum of Natural History, which is in the west alcove of the second floor. No written description or colored plate can give such a clear mental picture of a bird as an actual specimen, expertly mounted in a life-like pose; and clear mental pictures enormously simplify the problems of identification. This collection contains all the species of birds which occur with any degree of regularity near New York City, and the different sexes and plumages are represented. It is divided into two parts. A systematic series arranged in the order followed in this book, will enable the

visitor to find any particular species readily and compare it with its immediate relatives. In four special cases there is a seasonal collection, which exhibits mounted specimens of the bird-life from month to month. The first two cases contain the permanent residents, which are always present. The third case contains the summer residents. In March only those species which arrive from the south in that month are shown, in April the new arrivals are added, and so on until June, when all the summer residents have arrived. This case is accordingly empty during the winter months. The fourth case, nearest the window, contains the regular transients and winter visitants. As each species arrives or departs, it is added or withdrawn. In June, when the summer resident case is full, there are no transients or winter residents present, and the fourth case is accordingly empty. The irregular winter visitants are added only in those winters when they are present. In this way a few minutes' inspection will enable the visitor to see mounted specimens of all the species of birds present near the City at the time of the visit.

CHANGES IN BIRD-LIFE

It is apparent that the growth of a great city, the development of many suburbs and summer resorts, must have profoundly changed the original character of the territory covered by this Handbook. In early colonial times the vast coastal marshes were replaced inland by a forest which stretched unbroken to the Prairies. Game of all kinds abounded. The woods were full of Wild Turkeys, also Pigeons in season. Presumably the Pileated Woodpecker was generally distributed. The marshes were stocked with wild-fowl in great variety and abundance, including Pelicans, Cranes, and Swans. The bird-fauna, however, of these times must ever remain outside the field of exact knowledge.

Ornithological history in our territory may definitely be said to begin about one hundred years ago with the work of

Giraud and his friends on Long Island. This may be called the close of the period of greatest abundance, and lasted to about 1885. During this period the remnants of the original forest disappeared, market hunting on a large scale greatly decreased the number of what game birds remained, the demands of the millinery trade practically exterminated the Tern and Shore-bird colonies, and the popularity of many smaller birds as cage pets affected certain species like the Bobolink and Mockingbird.

The next twenty-five years saw changes of a different sort due to different causes. The rapid growth of the city, and the development of suburbs, led to the draining of marshes and the clearing of land still suitable for many kinds of birds. The rapid increase of a low-class foreign population, for whom everything with feathers was game, greatly affected many common species which had become adapted to the vicinity of man. The successful introduction of the English Sparrow began during this period seriously to harm those species which were unable to compete with it. These factors still persist at the present time and will undoubtedly continue. The introduction of the Starling in addition promises to work even greater havoc with native species than the English Sparrow. The following list contains those which are definitely known to have decreased or disappeared in historical times in the ornithological sense. Those marked with an asterisk (*) have decreased markedly in the last twenty years.

Laughing Gull
Gull-billed Tern
Caspian Tern
Forster's Tern
Common Tern
Roseate Tern
Least Tern
Black Skimmer
Hooded Merganser
Mallard

Baldpate
Green-winged Teal
Blue-winged Teal
*Wood Duck
*Bufflehead
Labrador Duck
Ruddy Duck
Whistling Swan
*Least Bittern
Snowy Egret

*Florida Gallinule	Heath Hen
Avocet	Passenger Pigeon
Black-necked Stilt	Fish Hawk
*Woodcock	*Barn Owl
Dowitcher	Pileated Woodpecker
Knot	*Acadian Flycatcher
Pectoral Sandpiper	*Least Flycatcher
Marbled Godwit	Raven
Hudsonian Godwit	Bobolink
Upland Plover	*Cardinal
Long-billed Curlew	Dickcissel
Eskimo Curlew	Summer Tanager
Golden Plover	*Purple Martin
Piping Plover	*Cliff Swallow
Wilson's Plover	*Warbling Vireo
Oyster-catcher	*Yellow-throated Vireo
*Bob-white	*White-eyed Vireo
*Ruffed Grouse	*Kentucky Warbler

Fortunately there is a brighter side to the picture. The abolition of market hunting, the enactment and enforcement of wise game laws, especially the abolition of spring shooting, have had a marked effect. Numerous birds are now absolutely protected throughout the year, and the term "game-bird" is applied to a small remnant of species only. The millinery trade in native birds has been killed, and the possession of native song-birds as cage pets has long been contrary to law, and the craze has died out. Much of this is due to the activity of the National Association of Audubon Societies for the protection of birds, led by a few able, far-sighted and enthusiastic men. There is perhaps no better example of an utterly unpopular cause turned into a more brilliant success. Be this as it may, the labors of these men, and the wise laws they have advocated, are slowly but surely bearing fruit. In the last fifteen years there has been a marked and gratifying increase of certain species, acquaintance with which locally was in my boyhood almost outside the bounds of reasonable hope. It will be noted that some

of these species occur in both lists. The Laughing Gull, for example, has undoubtedly increased in the last fifteen years, but is still much less common than one hundred years ago. The list follows:

Glaucous Gull	American Egret
Iceland Gull	Little Blue Heron
Black-backed Gull	Dowitcher
Herring Gull	Knot
Laughing Gull	Pectoral Sandpiper
Common Tern	Piping Plover
Least Tern	Evening Grosbeak
Baldpate	Tennessee Warbler
Green-winged Teal	Cape May Warbler
Pintail	Bay-breasted Warbler

It is perhaps human nature to take for granted that which one has, and to sigh for what one has not. This is particularly true of the bird-student who is often not at all interested in the many common species, but is ever striving to see the rarer ones, with which he is not acquainted. If this attitude be unduly indulged, his hobby colors his whole mental outlook. Civilization itself and its progress becomes an evil, which he resents with pathetic futility. Thinking of what he has lost or might have had, he misses the wealth of variety with which Nature has endowed this region. Man and his works were suddenly turned loose in a peaceful wilderness. How sudden and terrible a catastrophe to the native birds! Over a sufficiently long period, the survival of any species depends upon its adaptability to a changing environment, but how acid the test which man has furnished in the New World. There is no doubt that some could not endure this test; they have utterly disappeared from this region. Many others are retreating as a great city sends out ever-stretching tentacles into the rural districts. No bird can live on asphalt and concrete. But if city blocks are contrasted with primeval forest, most of this area may be regarded as a half-way compromise. This compromise the great majority of our birds have accepted. While

definite historical evidence is lacking, it is highly probable that most of the common species are far more abundant individually today than two hundred and fifty years ago. This is the invariable outcome of the sharp struggle for existence, precipitated by a suddenly changed environment. The failures disappear, the successful are rewarded in that they flourish as never before, and their unconscious goal, the maintenance of their race, is assured.

However, a word of warning must be uttered, lest these remarks engender undue optimism. The sharp struggle of our native species to maintain themselves is not over; the problem is still present; their environment is constantly changing for the worse. Man, who is responsible, owes them all the protection and help in his power. Economically they afford him invaluable assistance, and if he will take a little trouble they will open up a world of æsthetic enjoyment for him, which will enrich all the years of his life. The country where twenty-five years ago I learned to know the commoner birds has been obliterated. The cottagers on the Palisades near Fort Lee have forgotten that their homes have replaced woods teeming with bird-life; the bathers on Rockaway Beach would be astonished to learn that the Gulls are a dim reminder of the hundred species of water-birds we used to find there. May the time never come when I can hear only the harsh chatter of Starlings from my house in the suburbs. May the time never come when I stand some May morning on the beach and miss the little Sandpipers trotting innocently ahead of the tide, and gaze out to sea over a birdless ocean. May the time never come when the woods and fields are so far distant, that reaching them is difficult for most city dwellers. Should this time come, our native birds, a priceless heritage, which it has taken mysterious forces and laws many ages to evolve, will have disappeared, never to return again.

**List of
Principal Works of Assistance in Studying the Birds of
the Vicinity of New York City**

GENERAL

1. Reed, C. A. Bird-Guide (pocket size); Part I, water birds; Part II, land birds; many colored illustrations (Doubleday, 1905-6).
2. Hoffmann, R. A. Guide to the Birds of New England and Eastern New York (Houghton, Mifflin, 1904). The best manual for identifying the common birds of the region covered, in life. Contains a good discussion of the life-zones.
3. Chapman, F. M. Handbook of the Birds of Eastern North America, revised edition (Appleton's, 1912). Indispensable for all people seriously interested in bird study, and a book which no student has ever outgrown. Gives a summary of the migration and nesting dates of birds near New York City, in the introduction.
4. The Auk; a quarterly journal of Ornithology published by the American Ornithologists' Union. Its volumes contain numerous articles and notes on the birds of this region, particularly the records of rarities. This magazine is indispensable for serious students.
5. Bird-Lore, a Bi-Monthly Magazine devoted to the Study and Protection of Birds, edited by Frank M. Chapman. No local student can afford to be without this magazine. The "Notes from Field and Study" contain many observations of local interest. Christmas Bird Censuses from many localities in this Region are published annually in the January issue. Of special value are the Season reports from representative areas throughout the United States. The New York Region report is now written by J. T. Nichols. In this

way one can obtain an excellent summary of the local bird-life every two months and contrast it with that of points just to the south and the north.

NEW YORK

1844. Giraud, J. P., Jr. *The Birds of Long Island*, . . . New York. Now out of print and scarce. An excellent and accurate account of valuable historical interest.
1906. Chapman, F. M. *The Birds of the Vicinity of New York City*. *Am. Mus. Nat. Hist.*, Guide Leaflet, No. 22. Out of print. Gives full references for all published records, and a very complete bibliography.
1907. Braislin, W. C. *A List of the Birds of Long Island, N. Y.* *Abst. Proc. Linnæan Society of N. Y.* for 1907. An excellent and up-to-date report in everything except migration dates. Full references to all published records and a complete bibliography.
- 1910-14. Eaton, E. H. *Birds of New York*, Vol. I, Water and Game Birds; Vol. II, Land Birds. Published by the New York State Museum, Albany. Beautiful colored plates of every species by Fuertes, which can be obtained separately. The best and most complete account of the birds of a state ever published. Full references to all published records. Migration tables for every county, and every local list of importance is abstracted. Among others Dutcher's Long Island Notes and Dr. Fisher's observations at Ossining (Sing Sing) are published complete for the first time. The information on Long Island birds is far more complete than Braislin's list.

NEW JERSEY

1906. Chapman, F. M. (See New York.)
1909. Stone, W. The Birds of New Jersey. Ann. Rep. N. J. State Museum. Contains a complete summary of all the information for the sections in our Region available at that time. Full references and a complete bibliography.
1909. Baily, W. L. Breeding Birds of Passaic and Sussex Counties. Cassinia, pp. 29-36. The only information as yet published on the summer bird-life of this little known section.

ANNOTATED LIST OF THE BIRDS OF THE NEW YORK CITY REGION

HOLBOELL'S GREBE (*Colymbus holbælli*)

A rather common migrant along the coast, scarcer in winter, most numerous at the eastern end of Long Island. Of rare or casual occurrence inland. Subject to considerable variation in numbers from year to year. Well-marked flights are occasionally noted in late winter or spring near New York City. Seldom seen before November 1 or after April 15.

Holboell's Grebe is readily recognizable from our other Grebes by its much larger size. In winter plumage it lacks the sharp contrast of black and white on the side of the head characteristic of the Horned Grebe, but in breeding dress this character is reversed in the two species. In flight at a distance observers are apt to confuse Holboell's Grebe with the female Red-breasted Merganser. The Grebe, however, moves its wings less rapidly, has an even more attenuated neck, and holds the head and neck *bent downward slightly*, an excellent field mark by which the two birds can be distinguished at the distance of at least a quarter mile.

Long Island. Irregular winter visitant, commonest during spring and fall. October 19, 1904 (Rockaway Point, W. H. Wiegmann) and October 7, 1918 (Peconic, Latham) to May 13, 1917 (Long Beach, Janvrin). Casual in Prospect Park, Brooklyn, March 16, 1918 (Fleischer).

ORIENT. Winter visitant, October 7, 1918 to May 6, 1917. Average, November 20 to March 23.

MASTIC. Uncommon winter visitant.

LONG BEACH. Common transient, rare in winter, sometimes abundant in late February, late March, or early April. October 23, 1910 (Griscom) to May 13, 1917 (Janvrin).

New York State. Rare off Staten Island (Chapin); rare near Ossining on the Hudson, about 15 records in 15 years (Courtenay Brandreth); very rare elsewhere.

CENTRAL PARK. Casual on the Reservoir, April 6 to 11, 1916 (Hix and L. N. Nichols).

BRONX REGION. Very rare or casual; three records, November 4, 1905 (W. H. Wiegmann and Hix); October 15, 1910 (Wiegmann and Hix) ; April 4, 1917 (L. N. Nichols).

New Jersey. Rare in Newark Bay (Urner); casual inland, occurring chiefly in April. Recorded from Morristown (R. C. Caskey) and Boonton (April 1, 1916, R. C. Murphy).

ENGLEWOOD REGION. Casual visitor on the Hudson River, March 8, 1914 (Griscom, J. M. Johnson, S. V. LaDow) and Overpeck Creek, April 2 to 7, 1916 (Rogers and Weber). A single bird on the Nordhoff Ice Pond, June 10 to 24, 1905 (Hix).

HORNED GREBE (*Colymbus auritus*)

The Horned Grebe is one of the most characteristic winter birds of our outer beaches, and rare indeed is the day spent along the ocean front at this season that one or more of these little birds is not observed diving "like a flash" either in the surf or just outside it. Its small size and slender head, neck, and bill will distinguish it from any other water-bird except the Pied-billed Grebe. The latter has no white patch in the wing, no white on side of head, neck, and breast, and the bill is much stouter with a curved culmen.

A common migrant and winter resident along the coast, sometimes positively abundant. Occasional on the larger bodies of water inland, but less so than formerly, at least on the Hudson River. Arrives about October 15 and leaves the first week in May.

Long Island. Common winter visitant, abundant in migration, September 23 to May 30; casual in summer.

ORIENT. Common winter resident, September 23, 1918 to May 25, 1906. Average, October 12 to May 10. Casual in summer, Orient, East Marion, and Gardiner's Island.

MASTIC. Fairly common winter visitant.

LONG BEACH. Common winter resident, October 1, 1918 (Bicknell) to May 19, 1921 (Bicknell); casual August 3, 1922 (Bicknell).

New York State. Regular off Staten Island, formerly common on the Hudson, now rare except near Ossining where it is still a common transient (Courtenay Brandreth); noted there as late as May 24, 1922 (Brandreth).

CENTRAL PARK. Casual on the Reservoir, December 27, 1909 (Rogers); December 25, 1919 (L. N. Nichols); January 1, 1922 (L. N. Nichols).

BRONX REGION. Rare visitor on the Sound, casual on Jerome Reservoir, not recorded from the Hudson since 1880. Only three recent records, January 15, 1916 and January 19, 1919 (L. N. Nichols); March 19, 1914 (Jerome Reservoir, Hix).

New Jersey. Rare on Newark Bay, few records elsewhere inland, but data from the larger lakes are lacking. A regular migrant on the Reservoir at Boonton (Carter).

ENGLEWOOD REGION. Very rare transient. On the Hudson River, October 27, 1909 (Griscom); Overpeck Creek, October 31, 1909, specimen taken (Weber); April 3, 1921 (Griscom and Janvrin).

PIED-BILLED GREBE (*Podilymbus podiceps*)

This is preëminently our fresh-water Grebe, and prefers marshes, ponds, and sluggish streams, where aquatic vegetation is abundant. It does not object to salt water, but is rarely seen in the open, deep water of our bays, and seldom if ever in the ocean itself. The note of this bird strongly suggests the *cow-cow-cow* call of the Yellow-billed Cuckoo, but is very loud and sonorous. Much work remains to be done to settle its status in our area as a summer resident.

An irregular migrant, normally uncommon especially in spring, and less common on Long Island than in northern New Jersey and the Hudson Valley. Flights occasionally occur, as in the spring of 1921, when the species is commonly observed throughout the area. Most often seen in April and late October. Very rare in winter after December 1. Status as a summer resident in doubt. Reported as breeding on Long Island by Giraud, at Lake Hopatcong (Rhoads), rarely near Morristown (Thurber), but no definite records existed until 1906, when a colony was found nesting in the Newark marshes by Messrs. Abbott, Hann, and Callender, which contained at least five pairs. This colony is now destroyed. A

pair bred in 1909 at Orient, L. I. (Latham). At the present time no definite breeding colony is known in our area, but vast reaches of the Newark and Hackensack marshes are unexplored, and the larger lakes in Northern New Jersey would well repay investigation, as this species was noted in early July 1920 at Swartswood Lake (Griscom). There is a reasonable possibility, therefore, that it may yet be found to breed regularly in northern New Jersey and sporadically at least on Long Island.

Long Island. Locally common transient, rare in summer and winter. April to May 1; (July 21) August 15 to December 15.

ORIENT. Frequent in migration, rare in summer and winter. April 20, 1917 to May 1, 1908; August 28, 1911 to November 3, 1919. Bred at Orient, 1909.

MASTIC. Common transient. Noted July 21, 1917.

LONG BEACH. Rare or casual transient, few records. August 16, 1917 (Bicknell) to October 12, 1921 (Griscom, Johnson, and Charles Johnston). One found dead, February 23, 1914 (Weber).

New York State.

CENTRAL PARK. Rare transient, observed about once in three years. April 11, 1914 (Hix) to April 21, 1914 (Griscom); September 23, 1921 (Griscom) to November 6, 1904 (Hix).

BRONX REGION. Rare transient, only two recent spring records. April 22, 1915 (S. H. Chubb) to April 28, 1917 (L. N. Nichols); September 19, 1915 (L. N. Nichols) to October 20, 1917 (C. L. Lewis).

New Jersey. Occurring throughout the area as an uncommon spring and common fall transient, occasionally in considerable numbers. Will probably be found breeding locally.

ENGLEWOOD REGION. Uncommon transient, especially in spring, occasionally numerous. March 27, 1921 (Griscom and Janvrin) to April 21, 1911 (Griscom); August 21, 1909 (Hix) to November 3, 1916 (Weber).

LOON (*Gavia immer*) Fig. 1

Loons are a familiar sight along the outer beaches in all except the summer months, and in late spring and fall are constantly flying up or down the coast high overhead, looking

like gigantic Mergansers, with slower wing-beats, however, than any duck. On still, calm days, their weird laughter comes to one over the silent waters, bringing an involuntary picture of some dark lake, framed by the solemn spires of the spruces, breathing the loneliness and seclusion sought by this bird in its northern breeding grounds.

A common winter resident, abundant in migrations along the coast of Long Island. Occurring more rarely as a migrant on the Hudson River, and the larger lakes and reservoirs inland, but like the Canada Goose not infrequently seen flying overhead almost anywhere inland. More abundant and generally distributed in May than any other month, and usually present in our area from September to June. Non-breeding birds are occasionally noted in summer.

Long Island. Common winter visitant, abundant in migration, non-breeding birds occasional in summer. August 10 to June 20; always present from early September to June.

ORIENT. Common winter resident, frequently summering. August 28, 1905 to June 19, 1908, average September 20 to June 6.

MASTIC. Common in migration, fairly common in winter. Noted July 10, 1921.

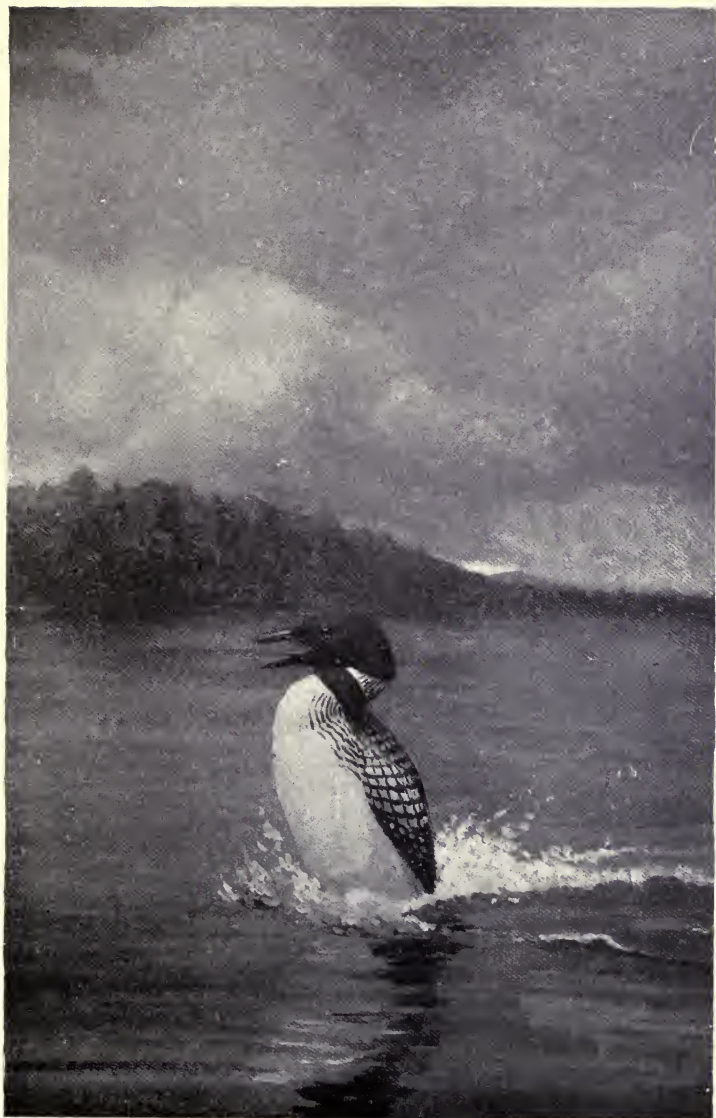
LONG BEACH. Common in migrations, uncommon in mid-winter. August 12, 1920 (Bicknell) to June 14, 1917 (Bicknell); noted June 23 and July 4, 1921 (Bicknell).

New York State. Noted on Croton Lake late June 1916 (Brandreth).

CENTRAL PARK. Occasionally noted flying over; once on the Reservoir. May 4, 1913 and May 10, 1914 (Griscom); May 6, 1919 (Hix).

BRONX REGION. Rare on the Reservoirs and the Sound. April 25 to May 15, 1914 (Chubb); September 17, 1917 (E. G. Nichols) to December 17, 1915 (L. N. Nichols); February 9, 1922 (L. N. Nichols).

New Jersey. Regularly noted flying overhead in late April and May, occasionally alighting on the larger lakes and reservoirs. Noted as late as June 1, 1919 on Culver's Lake (Miller and Griscom). Apparently very rare in the fall, and unknown almost everywhere at that season.



Painting by Courtenay Brandreth

Fig. 1. Loon.

ENGLEWOOD REGION. Regular in spring, but almost never alights; only one fall record. April 20, 1912 (Griscom, LaDow) to May 17, 1914 (J. T. Nichols); November 23, 1913 (Griscom).

PACIFIC LOON (*Gavia pacifica*)

An accidental visitant from the northwest. One record, Sand's Point, Long Island, April 29, 1893. Recorded by Dutcher as the Black-throated Loon and passed as such in the literature until 1917, when W. DeW. Miller reidentified the skin in the American Museum of Natural History at the request of F. Seymour Hersey, who was investigating the status of the Black-throated Loon in North America. (See Auk, 1917, pp. 283-290.)

RED-THROATED LOON (*Gavia stellata*)

This species is much less frequent in our area than the common Loon. The adult in breeding plumage with a red throat is rarely seen. In winter plumage the upper parts are *spotted* with white instead of margined with grayish, as in the common Loon. It is a much smaller bird, and Eaton has pointed out its best field character, the slenderer bill, slightly concave in the region of the nostrils, giving it an uptilted appearance at a great distance.

Uncommon migrant along the coast, occasional in winter and summer. There are two old records for the Hudson River, and Fisher gives it as a casual transient at Ossining without definite data. Otherwise no records from the interior.

Long Island. Fairly common transient, uncommon in winter, most numerous in November. September 14 to May 11, casually as early as August 24 to June 30.

ORIENT. Not common transient, occasional in winter and summer. October 18, 1912 to May 17, 1918, average November 8 to May 6.

MASTIC. Uncommon transient.

LONG BEACH. Uncommon transient, decidedly rare in winter, September 19, 1872 (N. T. Lawrence) and October 6, 1921 (Bicknell) to May 29, 1919 (Bicknell).

New York State. Specimen taken off Staten Island, November 5, 1907 (Chapin). Otherwise unknown.

New Jersey. Unknown in our area. One or two reports based on sight records entirely unreliable.

PUFFIN (*Fratercula arctica*)

The comical little Puffin with its huge bill, dumpy body, and whirring flight, is a very rare winter visitant to Long Island. It was reported by De Kay, Giraud, and Lawrence without definite data. The definite records are Center Moriches, December 15, 1882; Montauk, March 30, 1902; one picked up dead on the beach at Montauk, spring of 1915 (Weber, Abst. Proc. Linnæan Society, N. Y., 1917, p. 5).

BLACK GUILLEMOT (*Cepphus grylle*)

A very rare winter visitant to Long Island. There is an old specimen labelled "Long Island" in the Lawrence Collection. Seen January 1, 2, and February 22, 1921 near Montauk (Griscom, Crosby, and Janvrin, Auk, 1922, p. 118). Undoubtedly the same bird, and seen all three times along the same stretch of shore. Another individual seen March 12, 1922 just off shore at Montauk Point (Griscom and LaDow).

This species and the Puffin prefer a bold and rocky coast, and it is possible that extended observation at Montauk, where alone these conditions prevail, might show that they occur less rarely.

BRUNNICH'S MURRE (*Uria lomvia*)

This species and the next two live at sea during the winter and approach the coast only when blown in by gales. The majority of specimens recorded are, consequently, picked up dead or exhausted on the shore. The best way to observe these birds is, therefore, to go off shore in a fishing vessel or a motor boat, a chilly and uncomfortable proceeding. On the wing this species and the Razor-bill are distinguishable at a

moderate distance by the heavier, stouter bill of the latter. On the water the tail of the Razor-bill is *cocked up* in the air.

Brunnich's Murre is an irregular winter visitant off the coast of Long Island, probably occurring every year, occasionally in numbers, from November to March. It is of casual occurrence on the Hudson, Ossining, December 11, 1894 (A. K. Fisher), and Fort Lee Ferry, winter of 1910-1911 (J. T. Nichols). The species has occurred twice at Princeton, just outside our area. Stone records several shot at Perth Amboy, January 1890, and another reported to him by Babson on the reservoir at Orange, December 24, 1899. One seen between the Battery and Staten Island, December 25, 1908 and collected two days later (Chapin).

Long Island. Irregular winter visitant, November 22 to March 24.

ORIENT. Rare winter visitant, December to February 1, 1902.

LONG BEACH. Three shot off the beach in December 1892; two shot off Point Lookout a good many years ago by C. H. Lott (Bicknell MS.).

RAZOR-BILLED AUK (*Alca torda*)

An irregular winter visitant to Long Island waters, but doubtless occurring every winter off shore from November to March. There are 17 definite records, and in addition the statement by Captain Scott in Dutcher's notes that it was an occasional winter visitant at Montauk Point, flocks seen 10-15 times. The most recent observations are a bird seen by Dr. Wm. H. Wiegmann under most favorable circumstances at Manhattan Beach in February, 1921, and another seen to swim ashore at Long Beach January 18, 1922 (E. P. Bicknell), and presented to the American Museum. Its breast feathers were thickly clotted with oil, and the bird was helpless and exhausted.

Long Island. Irregular winter visitant, November 2 to February 6.

ORIENT. Rare and irregular winter visitant, January 12, 1904 and January 26, 1887 (Worthington).

LONG BEACH. One record, January 18, 1922 (Bicknell).

DOVEKIE (*Alle alle*)

Like the last two species an irregular winter visitant from November to March off Long Island, but is apparently less often driven to shore by severe weather. There are some 20 records in the last 40 years. Casual in summer off Long Island, and only one record inland, Ossining, December 5, 1898 (A. K. Fisher).

Long Island. Irregular winter visitant, casual in June, August, and September. October 31, 1911 (D. H. Miller—specimen sent to Dr. Dwight) to March 24.

ORIENT. Rare, irregular winter visitant, January 22, 1901 to February 14, 1914.

MASTIC. One record.

LONG BEACH. Several records. Two November 23, 1891 (N. T. Lawrence); one found dead May 30, 1911 (Griscom, Hix, Rogers); another found exhausted and smeared with oil January 25, 1922 (Hix); coast guards report other specimens on February 5, 1921 and mid-December 1921 (Bicknell).

SKUA (*Megalestris skua*)

Accidental visitant. Two records: one found dead on the beach at Amagansett, March 17, 1886; another specimen struck the Montauk Point Light, August 10, 1896, and its wing was sent to the Biological Survey in Washington, where it was identified by Dr. A. K. Fisher.

POMARINE JAEGER (*Stercorarius pomarinus*)

The Jaegers are the robbers among seabirds, and are generally seen chasing the smaller Gulls and Terns, compelling them to drop the food they have secured. In life they strongly resemble the Gulls, but have a swifter, more powerful and hawk-like flight, with more rapid wing beats. While their plumages vary in many puzzling ways, the dark phase is darker than any immature Gull, the light phase is always

strongly dark above and light below, and immature birds are always noticeably barred below, never true of immature Gulls.

With us Jaegers are eminently pelagic migrants, and are infrequently seen from the coast. The best place to observe them is the fishing banks off Montauk Point, but they occur regularly almost anywhere along the south shore of Long Island from 3-5 miles off-shore, and are commonly observed from fishing vessels and passing steamers between August and December. In the spring they are apparently much rarer. Their numbers, in part at least, depend upon the abundance of fish, resulting in occasional flights when they are decidedly common, as in 1888 and 1910. The adult in the light phase is much scarcer than other plumages.

Of the three species the Pomarine is the largest, but young birds are no larger than adult Parasitic Jaegers. There is no essential difference in plumage between the two to serve as a reliable field character, but the elongated central tail feathers are twisted and wide in the Pomarine, and narrow and pointed in the Parasitic. This is an excellent character in adult birds, but the elongation of these feathers is greatly reduced in young birds, and consequently the distinction becomes difficult to make out.

The Pomarine Jaeger is an uncommon but regular fall transient off the coast of Long Island. Apparently very rare in spring, and there is only one definite record. Casual at Ossining, October 18, 1877 (A. K. Fisher).

Long Island. Uncommon fall transient, August 2 to October 30. Very rare in spring, but one definite record, May 16, 1918, Long Beach (E. P. Bicknell). Casually as early as July 7.

ORIENT. Rare fall transient, August 6, 1888 to October 7, 1888.

LONG BEACH. Rare; May 16, 1918. (Bicknell); August 10, 1913 (Hix) to mid-October 1872 (N. T. Lawrence).

PARASITIC JAEGER (*Stercorarius parasiticus*)

Much the commonest species, and the one which most often approaches the coast. Adults of this species and the Long-tailed Jaeger are easily separated by the much longer central pair of tail feathers of the latter, but immature birds are exceedingly difficult to distinguish, and it is possible only under the most favorable circumstances of proximity. The Long-tailed is smaller, with the shafts of most of the primaries white, changing gradually to brownish. The axillars of the Long-tailed Jaeger are usually blacker and more narrowly barred with white.

Long Island. Regular and fairly common fall transient, chiefly off-shore, July 25, 1914 (Roy Latham) to November 15. Very rare in spring, only three definite records, June 1873 (Lawrence); April 30 (Braislin); June 9, 1917, Orient (Roy Latham).

ORIENT. Rare transient, more regular in September and October; June 9, 1917; July 25, 1914 to October 30, 1914.

MASTIC. Jaegers uncommon, the species doubtful; one Parasitic collected.

LONG BEACH. Rare and irregular fall transient. August 14, 1921 (R. Friedmann) to November 8, 1921 (Bicknell and Charles Johnston).

LONG-TAILED JAEGER (*Stercorarius longicaudus*)

Fortunate indeed are the few who have been privileged to see the adult of this species, with its long tail feathers floating in the breeze, as a migrant off the Atlantic Coast; one of the least known and most graceful of our sea birds. It is apparently even more pelagic than the other species, or else it has a different and unknown migration route. It is more than probable, however, that the immature bird has frequently escaped detection by collectors.

Long Island. Very rare fall migrant. For years an immature specimen in the Lawrence Collection labelled Long Island was the only record for New York State. On August 26, 1913 Thurston shot an immature bird off Fire Island now in the Dwight collection. R. C. Murphy saw an adult with both the other Jaegers off Sandy Hook, September 7, 1918, but was unable to collect it.

IVORY GULL (*Pagophila alba*)

An accidental visitant from the arctic. One record, Sayville, Long Island, January 5, 1893. Mr. A. H. Helme has written "that he once saw a bird of this species flying about Mt. Sinai harbor." (Eaton, Birds of New York.)

KITTIWAKE (*Rissa tridactyla*)

The Kittiwake is our most pelagic Gull, and is infrequently seen from the shore. It is, however, an abundant migrant and common winter visitant off-shore from the middle of November to March. There are no records or reliable observations away from the coast. Inexperienced observers think they see this little Gull more often than they do. It is larger than the Bonaparte's, but smaller than the Ring-billed Gull, with a more graceful flight and more rapid wing-beats. It always has *black* legs. The immature bird resembles Bonaparte's Gull in the same plumage, but has a dark bar on the back of the neck instead of a dark spot back of the eye. The adult should be identified with great caution on our beaches.

Long Island. Common winter visitant, mostly off-shore, November 4 to March 21. An exceptionally early arrival October 13, 1912.

ORIENT. Rare, irregular winter visitant, November 23, 1907 to February 28, 1912.

LONG BEACH. Rare and irregular in fall, winter, and spring. October 13 and 27, 1912 (Griscom); November 6, 1917 (Bicknell) to March 12, 1911 (Griscom) and March 17, 1921 (Bicknell).

GLAUCOUS GULL (*Larus hyperboreus*)

With the steady increase of Herring and Black-backed Gulls in recent years the Glaucous and Iceland Gulls have become regular winter visitors, and are observed annually among the countless thousands of the other species which throng New York Harbor and the neighboring beaches.

Indeed it is more than likely that many individuals are undetected. The two species have similar plumages, but there is never any black in the primaries, which readily distinguishes them from other Gulls. The immature plumage has a pale cream-colored appearance in life, very different from the dirty grayish brown of the immature Herring Gull. In the second year they are pure white. The adult plumage with a pale gray mantle is rarely seen. To distinguish the two species is not particularly difficult. The Glaucous Gull is usually larger than a Herring Gull, and is always more stockily and heavily built. The Iceland is the same size as the Herring or a little smaller, and always has a *much slenderer* bill than the Glaucous Gull, a difference which is almost as striking as the difference in the bills of the Hairy and Downy Woodpeckers, and when once learned and observed becomes a reliable diagnostic character.

Uncommon but regular winter visitant to the coast of Long Island and New York Harbor, rarely seen much before Christmas, but lingering into May. Rare in Long Island Sound. Casual at Ossining, January 19, 1889.

Long Island. Uncommon winter visitant, always in increased numbers in severe winters; November 2 to May 26.

ORIENT. Rare winter visitant, November 2, 1920 to March 29, 1908. Average arrival November 25.

LONG BEACH. Observed almost every winter; November 16, 1919 (LaDow and Rogers) to May 26, 1921 (E. P. Bicknell and L. N. Nichols) and June 6, 1921 (Bicknell).

ICELAND GULL (*Larus leucopterus*)

Less common than the Glaucous Gull, but probably reaches Long Island annually. Numerous observations in the last five years from Long Island and the lower Hudson Valley. There was a marked flight the winter of 1921-22.

Long Island. Rare winter visitant, November 10 to May 28, 1922, Jones Beach (Crosby, Griscom, Janvrin, Johnson). Only two records for Long Island Sound, Miller's Place, November 30, 1888, and winter of 1893 (A. H. Helme).

ORIENT. Rare, irregular winter visitant, December 24, 1907 to March 4, 1918.

LONG BEACH. Several records in past few years; November 10, 1921 (Bicknell) to May 6, 1921 (Bicknell).

New York State. Seen on the Hudson as late as April 16, 1922 (Griscom).

CENTRAL PARK. Casual on the Reservoir, with Herring Gulls, March 29, 1912 (Griscom and LaDow).

BRONX REGION. One record, Rye, March 3, 1894 (Porter).

New Jersey. Present on Newark Bay near Elizabethport, January to April 1, 1922 (Urner).

ENGLEWOOD REGION. One definite and positive identification of an immature bird, February 1, 1920 on the Hudson from the foot of the Palisades near Englewood by C. H. Rogers and George E. Hix, the first observation of this species in the state. A bird seen May 12, 1918 (Rogers) in the same locality, and another February 13, 1915 (J. T. Nichols) from the Fort Lee Ferry, were probably, but not positively, this species.

KUMLIEN'S GULL (*Larus kumlieni*)

A very rare winter visitant. Only one definite record, an immature bird shot 5 miles off Rockaway Beach, March 8, 1898; an immature bird seen May 28, 1922 on Jones Beach was probably, but not positively, this species (Griscom). There is a possibility that with the increase of the other white-winged Gulls, this species may be detected occasionally. New England observers state that the gray spots on the primaries, which distinguish it from the Iceland Gull, are easily made out under favorable circumstances.

GREAT BLACK-BACKED GULL (*Larus marinus*)

This, the largest of our local Gulls, is a common winter resident on the coast, but is scarce in the harbor and the lower Hudson, and casual elsewhere. The greater size, heavier build, and more leisurely wing-beats distinguish it at great distances from the Herring Gull. The immature bird is almost always noticeably paler than the corresponding stages of the Herring Gull.

Long Island. Common winter resident, frequently abundant at the western end in severe weather. Rarely arrives in numbers much before Christmas. Casual in summer. September 12 to May 30.

ORIENT. Not common winter resident, September 12, 1909 to April 25, 1916. Average arrival, October 1; average departure, April 1.

MASTIC. Common winter resident.

LONG BEACH. Common winter resident, often abundant. August 22, 1918 (Bicknell) to May 30, 1920 (Rogers, Granger, and Janvrin). Immature birds now frequently summer (Bicknell); August 14, 1910 (Weber), perhaps an early migrant. Formerly rare before November and after April.

New York State. Regular in the Bay and the lower Hudson.

CENTRAL PARK. Casual on the reservoir, January 22, 1907 (Hix).

BRONX REGION. Casual winter visitant; 7 records: 6 on the Sound, 1 on Jerome Reservoir; December 6, 1915 (Hix) to February 20, 1922 (L. N. Nichols).

New Jersey. Rare in Newark Bay, unrecorded inland.

ENGLEWOOD REGION. Uncommon on the Hudson, seldom occurring above Fort Lee Ferry, December 21, 1910 (Griscom) to March 7, 1910 (Griscom and LaDow). Casual on Overpeck Creek, 2 records.

HERRING GULL (*Larus argentatus*)

An abundant winter resident and common non-breeding summer resident on Long Island. Innumerable multitudes winter near New York City. Migrants arrive from the north in August. After May 10, only stragglers remain on the Hudson River. Inland in New Jersey it is rare or casual.

Long Island. Abundant winter resident, common non-breeding summer resident, most numerous at all seasons at the western end. Arrives in August and departs commonly in May.

New York State. Present throughout the year on the Sound, in the harbor and on the River from early August to the end of May.

CENTRAL PARK. Common on the reservoirs or flying over, August 26, 1922 (Griscom) to May 8, 1922 (Griscom).

New Jersey. Away from the vicinity of the harbor, decreasing rapidly in numbers. Occasionally seen flying over at Plainfield

(Miller). Taken once at Whippany, Morris County, May 2, 1886 (Thurber). One seen at Budd's Lake, September 1903 (R. C. Caskey). Occasional near Montclair (Howland); regular on the Reservoir at Boonton (Carter). Recorded March 2, 1920 near Andover, Sussex Co. (F. Blanche Hill).

ENGLEWOOD REGION. Abundant winter visitant, August 15, 1921 (Bernard Fread) to May 23, 1920 (Rogers).

RING-BILLED GULL (*Larus delawarensis*)

Few birds are more frequently misidentified than this species, due to failure to understand its plumages and those of the Herring Gull, and few species are harder to identify positively. When direct comparison is possible, the smaller size of the Ring-billed is obvious. Under favorable circumstances the color of the legs is diagnostic, yellowish green in this species, flesh color in the Herring Gull. No other color character is reliable. All but fully adult Herring Gulls have a dark ring, spot or tip to the bill, and immature Ring-billed Gulls too closely resemble second year plumages of the Herring. There are still students who apparently disbelieve these facts, but they should examine museum specimens.

In spite of these handicaps to observation, there is no doubt that this species is a common migrant in Long Island waters. For a number of years observers suspected its occasional presence in winter, but the discovery in 1911 that the great majority of observations were unreliable at every season of the year, prevented the data at hand from being accepted. Fortunately Thurston collected a specimen January 1, 1914 at Fire Island, and another specimen taken January 26, 1892 at Miller Place (Helme) has since been discovered in the Dwight collection. Subsequent observation shows that this species winters occasionally, at least, at the western end of the island. It has been collected and observed off Staten Island, but is unknown from the Hudson River in recent years, although Fisher reports it as a casual migrant at Ossining.

Long Island. Common transient, uncommon in winter, casual in summer; August 8 to May 29, 1921, Jones Beach (Griscom and J. M. Johnson).

ORIENT. Rare transient, irregular in summer.

MASTIC. Fairly common transient; a few birds winter; has arrived as early as August 8, 1915.

LONG BEACH. Common transient, a few individuals usually wintering and summering, August 24, 1919 (M. S. Crosby) to May 28, 1911 (Griscom).

New York State.

BRONX REGION. One positive record; February 9, 1922 on the Sound with Herring Gulls (L. N. Nichols).

New Jersey. Frequently observed on Newark Bay near Elizabethport from August 2, 1922 to May 1, 1922 (Urner). No reliable records elsewhere in our area.

LAUGHING GULL (*Larus atricilla*) Fig. 2

The Laughing Gull is easily identified in any plumage at great distances by its small size and darker mantle and wings. It has had a chequered career in this vicinity. Formerly a common summer resident on Long Island, it rapidly decreased due to persecution for the millinery trade, and is not positively known to have nested since 1888 (Dutcher). Twenty years ago it was a very rare spring transient, the immature birds regularly noted in July, August and September. In the past ten years it has been steadily increasing in a most gratifying way, is now a regular spring and common fall transient, and there is good reason to hope that it will be found nesting on Great South Bay in the near future. The fall of 1921 witnessed a great flight of these beautiful birds. For the first time in the memory of the present generation it was common in the harbor and the lower Hudson, a familiar sight from ferries and piers, and wandered up the river as far as Dyckman Street. Normally departing in early October it lingered a month later and was last seen November 6 in Newark Bay by Mr. Charles A. Urner. There was an even bigger flight in the fall of 1922. Both seasons it appeared in numbers up the Hudson River in Haverstraw Bay.

Long Island. Now common on Long Island Sound; elsewhere a not uncommon and regular transient, most numerous in September. April 26, 1913, Rockaway Point (J. T. Nichols and W. H. Wiegmann) to June 2; June 30, 1918 (Mastic) to October 12; October 28, 1880 (W. W. Cooke); an occasional bird through June, and the species may be found breeding in the near future.

ORIENT. Increasing summer visitant. May 23, 1917 to October 12, 1914. Formerly bred.

MASTIC. Uncommon transient visitant.

LONG BEACH. Formerly very rare, now a regular transient in May and September. April 29, 1916 (J. T. Nichols) to June 2, 1918 (Janvrin); September 1, 1919 (Bicknell, Crosby) to September 22, 1921 (Bicknell).

New York State. Common in the harbor and the lower Hudson in the fall of 1921 and 1922; also common both seasons in Haverstraw Bay (Brandreth); has occurred every fall in recent years up to the middle of September.

BRONX REGION. One record, October 17, 1921 (L. N. Nichols).

New Jersey. Reported as common in Newark Bay from August 19 to November 6, 1921, never previously recorded (Urner); also abundant there in 1922. Thurber lists this species as "not uncommon in early spring" at Morristown. This remarkable statement is not supported by specimens in his collection, and is too improbable to be credited.

ENGLEWOOD REGION. Two records; two birds on the Hudson just off the Englewood Ferry slip, September 25, 1921 (Griscom); also four birds September 17, 1922 in same locality (Griscom and LaDow).

BONAPARTE'S GULL (*Larus philadelphia*)

This, the smallest of our Gulls, is readily distinguished by its size, its rapid, graceful flight, and the large amount of white in the primaries. It is a common fall transient, less so in spring, and decidedly uncommon in midwinter. It is decidedly irregular in the time of its appearance, one year common in November, and another year occurring chiefly in late December. It is of regular occurrence in the Lower Bay, but is now very rare on the lower Hudson. Fisher called it a rather rare transient at Ossining years ago, and Mearns



Photograph by Alfred M. Bailey

Fig. 2. Laughing Gull

a winter resident, abundant in autumn, near Cornwall, a rather surprising statement, as the river freezes solid in that section every winter.

Long Island. Common transient, uncommon in winter, October 5, 1913 (Cold Spring Harbor, J. T. Nichols) to January 5; April to May 24; casual in June and July; undoubted migrants sometimes appear in August and September.

ORIENT. Irregularly common fall transient, rare in winter and spring. October 27, 1911 to May 20, 1907. Average arrival, November 15. Casual in August, 1920.

MASTIC. Uncommon transient visitant; recorded August 3 and 16, 1919.

LONG BEACH. Irregularly common spring and fall transient, frequent in mid winter; September 23, 1920 (Bicknell) and October 9, 1910 (Griscom) to January 5, 1913 (Griscom); April 10, 1916 (Hix) to May 24, 1914 (Hix) and June 2, 1921 (Bicknell). Also recorded July 28, 1921 and August 11, 1921 (Bicknell).

New York State. Very rare or casual in our area, except in the lower bay.

BRONX REGION. Very rare; two records, December 27, 1913 (Hix) and February 9, 1922 (L. N. Nichols).

New Jersey. Rare in Newark Bay, August 20, 1922 and November 6, 1921 to January 15, 1922, and April 15, 1922 to May 13, 1922 (Urner); casual or unknown elsewhere.

ENGLEWOOD REGION. Very rare: twice Hudson River, April 3, 1921 and April 22, 1922, a single bird each time (Griscom, Janvrin, and LaDow); twice on Overpeck Creek, April 5, 1913 (Griscom) and April 21, 1910 (Griscom).

LITTLE GULL (*Larus minutus*)

Accidental visitant from northern Europe. Two Long Island records, Fire Island, September 15, 1887 and Rockaway, May 10, 1902.

SABINE'S GULL (*Xema sabini*)

Accidental visitant. Two Long Island records; Raynor South, July, 1837 and Gardiner's Bay, October 6, 1899.

CASPIAN TERN (*Sterna caspia*)

In the days when this species bred in Labrador and the Magdalen Islands, it was undoubtedly a regular, if uncommon migrant on the coast of Long Island. There are, however, only *nine* published records of its occurrence, one spring record, May 11, 1898. The fall dates range from July 21 and August 10 to September 13. Not yet recorded are two specimens in the Lawrence collection; Raynor South, August 10, 1831, and an immature bird found in Fulton Market, October 10, 1856, from "Long Island." The disappearance of, or great decrease in, the northeastern breeding colonies undoubtedly accounts for the present rarity of this splendid Tern on Long Island. The records show that it occurred regularly up to 1890, twice in 1898, and the last specimen was taken in 1900. Since then I know of only three observations in Long Island waters, and its status at present is a rare or casual transient. Its great size and large red bill will render it easily recognizable by the observer, who is so fortunate as to see it in life.

Long Island. Formerly uncommon but regular, now a rare or casual transient. One spring record, May 11, 1898; July 21 and August 10 to September 28. Recent observations are given below.

MASTIC. September 8, 1914 (J. T. Nichols and B. S. Bowdish).

LONG BEACH. Two records, September 28, 1916 and August 30, 1921 (Bicknell).

ROYAL TERN (*Sterna maxima*)

Accidental visitant from the south. One record, Raynor South, Long Island, August 27, 1831.

COMMON TERN (*Sterna hirundo*)

Dull indeed and insensible is he who does not appreciate the graceful beauty of these harmless swallows of the sea, as they stream down our coasts or hover over our beaches.

Unfortunately for the bird student, several species are exceedingly difficult to identify in life, and when immature or in winter plumage are indistinguishable. Few of our local birds have suffered more from persecution, and twenty years ago they were on the verge of extinction. The Common Tern was an abundant summer resident on Long Island in the days of Giraud. It last nested on the South Shore in 1884. Four colonies are known at the eastern end of Long Island. Recent efficient protection has seen a gratifying increase in these birds, and for the last ten years their numbers have steadily grown. Twenty years ago at the western end of the island, it was very rare in spring, uncommon but regular in fall. Now it is regular in spring and abundant from early August to November, remaining later in numbers every year, and common in the harbor and the lower Hudson, a familiar sight from the ferries. Above 125th Street it is casual. It is recorded as casual at Ossining (Fisher), but Mr. Brandreth now regards it as a regular transient there in August and September. These statements about the present day status of the Common Tern are based entirely on observation. While the great majority of these observations cannot be regarded for a moment as scientifically accurate identifications, this species is so well known to outnumber enormously all our others combined, that it would be captious to base its status on the relatively few specimens taken locally, or to pretend that all the birds in the harbor might be Forster's, Arctic, and Roseate Terns.

Long Island. Common transient, local summer resident; increasing. Middle of April (Giraud); May 1 to October 15, exceptionally to November 6.

ORIENT. Locally abundant summer resident, a common summer visitant throughout. May 1, 1910 to October 2, 1912; average May 12 to September 22. Breeds on Fisher's Island, Gull Island, Gardiner's Island, and Orient.

MASTIC. Common transient visitant.

LONG BEACH. Now a regular spring and common fall transient; May 4, 1922 (Bicknell) to June 16, 1919 (Bicknell);

June 30, 1922 and July 5, 1919 (Bicknell) to October 24, 1920 (Janvrin) and November 6, 1917 (Bicknell).

New York State. Regular fall transient in New York Bay, but scarce in the Hudson River; noted as early as August 3, 1919 (L. N. Nichols).

CENTRAL PARK. Casual; a bird seen flying over the Lake August 22, 1922 (Griscom).

BRONX REGION. One record, September 6, 1919 (C. L. Lewis).

New Jersey. Regular fall transient in Newark Bay, July 31, 1916 to October 3, 1920 and October 30, 1921; only two spring records (Urner).

ENGLEWOOD REGION. Recorded from the Hudson only, usually rare, occasionally in some numbers; August 15, 1908 (Hix) to September 22, 1912 (Hix).

ARCTIC TERN (*Sterna paradisæa*)

Apparently a casual visitor to the coast; one record, Ram Island Shoals, July 1, 1884 (Dutcher). Almost entirely pelagic on migration. On October 5, 1912 I saw hundreds of Terns flying south over the ocean 90 miles east of Montauk, which may well have been this species. The adult in breeding plumage can be identified at close range by its all-red bill, the more deeply forked tail and much grayer underparts. Other plumages and ages are indistinguishable in life from the Common Tern.

Long Beach. Mr. E. P. Bicknell informs me that he saw an adult at close range on September 1, 1919.

ROSEATE TERN (*Sterna dougalli*)

An uncommon migrant and local summer resident at the eastern end of Long Island, slowly increasing; for years unknown at the western end, now rare. This species, in summer plumage, is readily distinguishable from the Common Tern in life by the *black* bill, pure white underparts, and the long outer tail feathers, which seem to stream in the wind. The single harsh note, *cack*, is quite different from the notes of the Common Tern, and can be heard above the uproar made

by its relative. Young birds in the fall cannot safely be identified by color characters.

Long Island.

ORIENT. Not common summer resident, May 20, 1915 to September 15, 1915. A few pairs breed on Gardiner's Island with Common Terns.

LONG BEACH. Mr. Bicknell has four records in the last five years; August 9, 1917; August 19, 1920; August 4 and 18, 1921.

LEAST TERN (*Sterna antillarum*)

This pretty little Tern is easily recognized by its small size, appearing about half the size of the Common Tern in life. In breeding plumage its white forehead and yellow, black-tipped bill are additional characters, and its usual note, a shrill *yip, yip*, is diagnostic. It is usually very tame. Formerly a common summer resident on Long Island, it has not been known definitely to breed since 1882. Constant persecution reduced this species to the verge of extinction, and for years it was a very rare bird. In the last five years, however, it has been seen annually at the western end of Long Island, and a pair seen June 25, 1916 on Jones Beach by R. L. Peavey may have been breeding.

Long Island. Now an uncommon transient, May 18 to June 27; July 28 to September 15.

ORIENT. Occasional visitant in late summer, August 1, 1902 to August 27, 1913. Bred formerly.

MASTIC. Rare transient, one record.

LONG BEACH. Now a regular transient, May 18, 1916 (Bicknell) to June 27, 1919 (Bicknell); July 16, 1922 (Hix) to September 4, 1921 (Friedmann).

SOOTY TERN (*Sterna fuscata*)

A tropical species of accidental occurrence, which invaded New York and New England chiefly in 1876 and 1878. Two records; Lake Ronkonkoma, Long Island, September 13, 1878; Montauk, September 18, 1883.

BLACK TERN (*Hydrochelidon nigra surinamensis*)

The Black Tern in adult plumage can be confused with no other species. The young in the fall are always a much darker gray above than other Terns. This western species is preëminently a bird of the interior and characteristic of the prairies. It occurs in our area as a regular fall migrant along the coast, apparently completely changing its habits, as here it is purely casual in the interior. Indeed I have seen large numbers at sea off the Jersey coast far from land. The numbers vary greatly from year to year, and sometimes it is abundant, as in 1882, 1884, 1906, and 1919. The dates range from early July to the middle of October, but August to early September is the extent of the migration in ordinary years. Observers can see it from any ferry in the Harbor at this season with Common Terns.

Long Island. Common fall transient, July 12 to September 22; casual in spring; May 29, 1921, Jones Beach (Griscom and J. M. Johnson).

ORIENT. Rare, irregular fall transient. August 2, 1914 to September 9, 1914.

MASTIC. Common fall transient.

LONG BEACH. Regular fall transient, August 3, 1922 (Bicknell) to September 22, 1919 (Bicknell). One shot June 18, 1873 (N. T. Lawrence); one in breeding plumage observed at leisure June 3, 1922 (Charles Johnston).

New York State. Regular in the Harbor, July 13, 1920 (L. N. Nichols) to October 12, 1908 (Chapin). Casual at Ossining many years ago (Fisher), two recent records there (Brandreth).

New Jersey. Purely a casual visitor away from the coast and the harbor; an adult on Swartswood Lake, August 14, 1921 (Griscom).

ENGLEWOOD REGION. Noted a few times in August from Fort Lee Ferry, August 15, 1908 (Hix) to August 28, 1921 (Griscom); once on Overpeck Creek (Weber).

BLACK SKIMMER (*Rynchops nigra*) Fig. 3

An occasional summer visitant to Long Island years ago, when this curious bird bred commonly in southern New

Jersey. Eaton gives five records, the dates ranging from May 6 to September 3, the last in 1898. There are only two recent records, and the Skimmer is now a casual visitant in spring and summer; but as it has again reëstablished itself as a breeding bird in southern New Jersey, it might occur more frequently in Long Island waters. One bird around Point-o'-Beach, September 5-8, 1913, collected (G. K. Noble).

Long Island.

LONG BEACH. One recent record, May 25, 1919 (Griscom and Janvrin, *Auk*, 1920, p. 126). Specimens are recorded off the beach July 22, 1876 and September 3, 1876 by Newbold T. Lawrence in his notes (*vide* Bicknell).

FULMAR (*Fulmarus glacialis*)

Accidental visitant from the northern part of the North Atlantic. One was found exhausted at Ridgewood, N. J., December, 1891.

MEDITERRANEAN SHEARWATER (*Puffinus kuhlii kuhlii*)

In the *Auk* for January 1922, page 58, Dr. Robert Cushman Murphy records four specimens of this European relative of Cory's Shearwater in the Dwight Collection, taken on Long Island; two birds at Montauk Point, August 15, 1907, and two off Amityville, October 4, 1902. For the present at least it may be regarded as an accidental visitant from Europe.

CORY'S SHEARWATER (*Puffinus borealis*)

An uncommon but regular summer visitor to the seas near the coast of Long Island, but rarely approaching within sight of land, a notable exception in the fall of the years 1886 and 1887 in Gardiner's Bay. It was abundant off Montauk Point, August 8, 1916 (Murphy and Harper). The generally gray effect of the side of the head distinguishes this species in life from the Greater Shearwater, which has the side of the head



Photograph by Alfred M. Bailey

Fig. 3. Black Skimmer.

contrasted black and white. (For further details on this subject see Griscom, Auk, January, 1922, p. 103).

Long Island. Uncommon but regular summer visitor off-shore, August 6 to November 29. Specimens have been taken on eight different occasions, chiefly at the eastern end of the Island.

ORIENT. Recorded late summer and fall. August 6, 1888, Little Gull Island (Dutcher) to October 20, 1887 (Dutcher).

LONG BEACH. One found dead and in perfect condition October 31, 1918 (Bicknell); another seen on November 5, 1918 (Bicknell).

GREATER SHEARWATER (*Puffinus gravis*)

So far as known this species has exactly the same status as the last, but fewer specimens have been collected near land. It is occasionally seen in numbers off Montauk Point, and has been rarely observed as far west as Long Beach and the Cholera Banks (Hix).

Long Island. Uncommon summer visitant, varying in numbers, June 27 to October 31.

ORIENT. Rare summer and fall visitant. June 27, 1915 to September 25, 1913.

LONG BEACH. Casual visitant within sight of land; Oct. 6, 1918 (Willard G. Van Name) to October 31, 1918 (Bicknell). Three Shearwaters seen far out on October 3, 1921 may have been this species (Bicknell).

MANX SHEARWATER (*Puffinus puffinus*)

Accidental from European seas. A specimen was picked up dead at Fire Island Beach, August 30, 1917 by Henry Thurston, and is now in the Dwight collection. The first definite North American record, excepting Greenland.

AUDUBON'S SHEARWATER (*Puffinus lherminieri*)

Accidental visitant from the south. One record, near Bellport, Long Island, August 1, 1887 (Dutcher).

SOOTY SHEARWATER (*Puffinus griseus*)

This species has the same habits as our two other species and is usually found associated with them, but is much less common. Oddly enough, however, it has been observed from the shore more often than the others. At a distance it appears all black and is unmistakable.

Long Island. Rare summer visitant. May 29 to October 13. There is a specimen in the Lawrence Collection taken by Giraud on Long Island. The Dutcher Collection contains two specimens, taken respectively at Amityville, June 19, 1895, and Gardiner's Island, June 23, 1895. More recently taken at Montauk, August 15, 1907 (J. A. Weber); seen off the beach at Mastic, October 13, 1913; seen off Jones Beach, May 29, 1921 (Griscom and J. M. Johnson).

ORIENT. One record, Gardiner's Island, as above.

MASTIC. One record as above.

LONG BEACH. One picked up dead May 30, 1921 and presented to the Museum by Mr. George E. Hix; another found dead and much decomposed on July 7, 1921 (Bicknell).

BLACK-CAPPED PETREL (*Estrelata hasitata*)

Accidental. One record, Quogue, July, 1850.

LEACH'S PETREL (*Oceanodroma leucorhoa*)

A pelagic species, occurring in this latitude during its migrations, about which little is known. There are only six definite records for Long Island.

Leach's Petrel may occur more commonly than is supposed, as it could be overlooked very easily among the abundant Wilson's Petrels. Its *forked* tail is not noticeable except under favorable circumstances, but it is distinctly larger and browner than its relative.

Long Island. Status not satisfactorily determined. Five old records, May 4 to June 15; July 27; R. C. Murphy shot two specimens from the Sound beach, near Mt. Sinai, October 21 and 22, 1904, a record overlooked by both Braislin and Eaton.

New Jersey. A specimen was "caught in Elysian Fields, Hoboken, November 3, 1861 by Wm. Cooper" and presented to George N. Lawrence, and is now in the American Museum.

WILSON'S PETREL (*Oceanites oceanicus*) Fig. 4

This species is a common summer visitor off-shore, regularly entering the Sound and the Harbor and sometimes observed from the beaches in large numbers. The blackish coloration, white rump, long thin wings and fluttering, hovering flight just above the water, render them unmistakable.

Long Island. Common summer visitant, May 29 to September 14; most numerous in July and August.

ORIENT. Irregularly common summer visitant, May 29, 1915 to September 11, 1916.

MASTIC. Occasionally seen off the beach. Numerous on June 30, 1913.

LONG BEACH. Abundant a mile or two off-shore; seen from the beach on several occasions June 16, 1919 to August 18, 1921 (Bicknell).

New York State. Regular, often abundant in the harbor, noted as late as September 6, 1907 (Chapin). Rarely seen above the Battery.

New Jersey. One record for Newark Bay, June 16, 1916 (Urner).

ENGLEWOOD REGION. Known to have ascended the Hudson as far as Fort Lee Ferry on one occasion, first week in August, 1915 (Chapman).

BOOBY (*Sula leucogastra*)

Accidental from the tropics. One record, Moriches Bay, Long Island, many years ago.

GANNET (*Sula bassana*)

The Gannet occurs as a common transient off-shore, but is regularly seen from the ocean beaches, and on rare occasions fishes in the surf. It can be readily identified at great distances, whether the white adult or brown immature, by its great size, broad wings, slow powerful wing-beats, and its flight, which is in great curves. The long triangular bill is carried downward, preventing confusion with a Cormorant. It thinks nothing of diving head first into the water from a



Photograph by H. H. Cleaves

Fig. 4. Wilson's Petrel.

height of fifty feet or more, and the resulting splash can be seen a quarter of a mile away.

Long Island. Common transient off-shore, very rare in mid-winter. (March 3) March 23 to June 2; October 5 to January 5; casual in August and September.

ORIENT. Rare visitant, October 29, 1906 to December 30, 1915; April 7, 1912 (Gardiner's Island, Griscom and Harper).

MASTIC. Regular transient off-shore.

LONG BEACH. Common transient, chiefly in April and November. March 3, 1917 (J. T. Nichols) to May 19, 1921 (Bicknell) and June 2, 1921 (Bicknell). October 5, 1919 (Crosby) to January 5, 1913 (Griscom). One mid-winter record, January 24, 1922 (Griscom). Recorded August 4 and September 8, 1921 (Bicknell).

New York State. Casual off Staten Island, September 29, 1905 (Chapin).

New Jersey.

ENGLEWOOD REGION. Casual on the Hudson opposite Dyckman Street Ferry, October 16, 1915 (J. T. Nichols).

CORMORANT (*Phalacrocorax carbo*)

This species does not winter regularly south of Cormorant Rock off the Rhode Island coast. On rare occasions, however, it reaches the Orient Point region, chiefly in the fall, seldom remaining until mid-winter. This is undoubtedly responsible for the idea of the older ornithologists that it was a transient. The two species of Cormorants are difficult to distinguish in life. The common one is the Double-crested, and there is no reasonable doubt that the birds seen off the Long Island beaches are the latter species. Adults of the two species cannot be separated in life unless seen *sitting side by side*, when the greater size of *carbo* is evident. Immature birds are, however, readily separable, if a good view of the underparts can be secured. In the Double-crested the throat and breast are light brownish, in marked contrast with the blackish belly. The throat and breast of *carbo* are similarly colored, but there is a rapid change to *white* on the abdomen and belly.

Long Island. There is only one definite record for the south shore of Long Island, a specimen taken October 15, 1904 off Amagansett by G. H. Mulford, now in the Dwight collection.

ORIENT. Rare, irregular visitant in fall and winter. Not recorded in several years. September 24, 1888 (Little Gull Island, specimen taken) to February 24, 1911.

LONG BEACH. One seen October 12, 1917 (Bicknell). Several years ago G. E. Hix saw a Cormorant "with mostly white underparts," which must have been this species, but he was unfortunately unacquainted with its distinguishing characters at the time.

DOUBLE-CRESTED CORMORANT (*Phalacrocorax auritus*)

A common migrant on the coast, the height of the migration in late May and October. Very rare in winter, casual in summer. Casual on the Hudson River and elsewhere inland.

Long Island. Common transient, March 31 to June 29; August 10 to Dec. 14. Occasional in mid-summer, July 12, 1911 off Rockaway (Griscom); very rare in winter.

ORIENT. Common transient, occasional in summer. A record or two in winter. August 28, 1913 (average September 10) to November 22, 1919 (average November 12); spring arrival April 6, 1905 to May 2, 1910; departure May 10, 1916 to June 10, 1912. December 9, 1918.

MASTIC. Common transient.

LONG BEACH. Common transient; March 31, 1912 (Griscom) to June 27, 1919 (Bicknell); August 10, 1919 (Bicknell and Crosby) to December 14, 1913 (Griscom). Very rare in winter, January 7, 1920 (Janvrin).

New York State. Casual on the Hudson, Ossining, June 22, 1876 (Fisher). Mr. Brandreth has seen four single birds there in recent years, and knows of another captured in a fish-weir.

New Jersey. Casual at Littleton, Morris Co., October 1880 (Thurber).

WHITE PELICAN (*Pelecanus erythrorhynchos*)

In colonial times the White Pelican was apparently of regular occurrence in the Northeast. It is now purely accidental. There is an old specimen taken in Canarsie Bay many years ago in the collection of the Long Island Historical

Society. Another specimen taken at Roslyn, May 11, 1885. Dr. C. C. Abbott claimed to have seen three of these birds flying off Sandy Hook in February 1864, but his observations are known to have been so unreliable that this cannot be accepted as a definite record. The date renders the suspicion unavoidable that the birds were Gannets.

BROWN PELICAN (*Pelecanus occidentalis*)

Accidental straggler from the South. A specimen was shot off Sandy Hook about 1837. Seen August 28, 1902 at East Marion (Latham) and May 26, 1912, Jones Beach (Johnson and Griscom, Auk, 1912, p. 389).

FRIGATE BIRD (*Fregata aquila*)

Accidental straggler from the tropics. Two records. Faulkner's Island, 1859 (Grinnell) and Gardiner's Island, August 4, 1886 (Dutcher).

AMERICAN MERGANSER (*Mergus americanus*)

This fine species is an uncommon winter visitant to Long Island, very common on the Hudson River, and occurs regularly on all the larger lakes and reservoirs in our area. It is preëminently a fresh-water duck, and is not so partial to salt water as the Red-breasted Merganser. By all odds the best place to see this bird is the Hudson River from the Palisades Interstate Park, where it is sometimes positively abundant during severe cold waves, when the river is frozen solid further north. It is increasing around New York City, and now lingers in the spring much later than formerly.

Long Island. Uncommon winter visitant, more numerous locally (October 15) November 4 to April 29.

ORIENT. Uncommon winter visitant. November 26, 1910 (Miller and Griscom) to April 29, 1917. Average arrival about December 1.

MASTIC. Common winter visitant, November to April 24, 1920.

LONG BEACH. Casual; April 15, 1917 (Janvrin); January 13, 1921 (Bicknell).

New York State.

CENTRAL PARK. Very rare visitor to the Reservoir; January 22, 1907 (Hix); February 2 and April 9, 1909 (Griscom); March 3, 1910 (Griscom); April 10, 1916 (L. N. Nichols).

BRONX REGION. Regular winter visitant, often common. December 6, 1913 (Hix) to April 8, 1916 (L. N. Nichols); casual October 11, 1920 (L. N. Nichols).

New Jersey. Rare migrant at Morristown (Thurber); a common visitor to the Reservoir at Boonton (Carter). Regular on Newark Bay (Urner).

ENGLEWOOD REGION. Common winter visitant on the Hudson and Overpeck Creek, seldom in any numbers before Christmas. November 16, 1911 (Griscom) to April 25, 1920 (Griscom). A female seen May 12, 1918 (J. M. Johnson) was probably but not positively this species.

RED-BREASTED MERGANSER (*Mergus serrator*)

An abundant migrant and common winter resident on Long Island, but of very rare occurrence on the inland waters of our area. Mearns and Fisher regarded this species as very common on the Hudson fifty years ago, but this is most emphatically not the case today, and the greatest care should be taken by observers in identifying this species away from salt water. The drakes of the two Mergansers are unmistakable, but females and young, in this species, have lighter colored heads, and there is a gradual *transition* from the color of the head to the whitish throat and underparts, whereas in the American Merganser this change is abrupt. These characters, however, are not easy to make out, and require very close range or direct comparison.

Long Island. Common winter resident, abundant transient; barren birds occasional in mid-summer. September 15 to June 15.

ORIENT. Usually common in winter, always common in spring and fall. Rare in summer. September 20, 1919 to June 11, 1911. Average arrival, October 15; average departure, May 25.

MASTIC. Common transient, rare in winter; October to June 1, 1918.

LONG BEACH. Abundant transient, regular in winter, frequently summering; September 23, 1917 (L. N. Nichols) to June 18, 1921 (Janvrin).

New York State. Regular off Staten Island (Chapin and Cleaves); very rare on the Hudson except in the Tappan Zee section, where it occurs irregularly (Brandreth).

CENTRAL PARK. Casual visitor to the Reservoir, April 16, 1909 (Griscom); October 25, 1909 (Hix).

BRONX REGION. Rare winter visitant to the Sound; reported three times in December (L. N. Nichols); once in January (C. L. Lewis).

New Jersey. Occasional in spring on Newark Bay (Urner). Of casual occurrence on the reservoir at Boonton, April 18, 1921 and May 5, 1920 (Carter). No other records away from the coast except at Englewood.

ENGLEWOOD REGION. Very rare visitant. One record for the Hudson, April 5, 1914 (A. A. Saunders and Griscom). One record for Overpeck Creek, spring of 1917 (J. A. Weber).

HOODED MERGANSER (*Lophodytes cucullatus*)

According to old records this beautiful duck was rather rare on Long Island, but common elsewhere near New York City in suitable localities. Its status on Long Island does not seem to have changed materially, but elsewhere it is now a very rare bird, and ten years have gone by with scarcely a record near the city. The last three years, however, indicate a decided increase. The drake is absolutely unmistakable; the female and young are much smaller than the other two Mergansers and much *darker*.

Long Island. Uncommon transient, rare in winter, casual in summer. Now very rare at the western end of the island, only two recent records. Hempstead, March 11, 1917 (J. T. Nichols) and Prospect Park, Brooklyn, November 15, 1914 (Fleischer). March 11 to May; November 2 to December 14. June 13, 1891, 2 ♀ at Canarsie.

ORIENT. Sometimes common fall transient, rare in winter and spring. November 2, 1913 to April 5, 1912 (Gardiner's Island, Harper and Griscom). Once in summer, June and July 1906.

MASTIC. November 2, 1919, fairly common.

New York State. Formerly a common winter resident on the Hudson (Mearns, 1881); a rare transient in March at Ossining (Fisher). Collected on Staten Island, November 2, 1908 (Chapin). Now very rare.

CENTRAL PARK. Casual, November 17 to 23, 1921 (Griscom and Laidlaw Williams).

BRONX REGION. Casual on the Jerome Reservoir, March 17 and 20, 1914 (Chubb, Miller, Rogers); February 20, 1915 (J. M. Johnson).

New Jersey. Formerly a rare transient at Morristown (Thurber, 1887); rare at Summit (Hann, 1905). Mr. Chas. A. Urner has the following records for Newark Bay; March 5, 1921; November 12 and 20, 1921; February 25 to March 22, 1922; he knows of only one record in the preceding 20 years. One record on the Boonton Reservoir (Carter).

ENGLEWOOD REGION. Formerly a common transient (Chapman, from notes of Cornelius Demarest made prior to 1880). No other records until March 28, 1920 (Griscom and Janvrin) and March 6, 1921 (Griscom and Granger), both on Overpeck Creek.

MALLARD (*Anas platyrhynchos*)

Even in Giraud's day the Mallard was not regarded as a common duck on Long Island, where it is still a regular transient in small numbers at the eastern end, but much rarer at the western end. Twenty-five years ago it was an event to record this species near New York City, but thanks to the abolition of spring shooting, it is now seen annually in spring in favorable places in northern New Jersey, such as the Overpeck marshes in the Englewood region. Tame birds, originating from the Zoological Garden, now occur throughout the year in Van Cortlandt Park, on the Bronx River, etc., and must not be confused with really wild birds. In our region the Mallard almost invariably associates with the Black Duck, as a rule a few pairs at most mingling with their abundant relative. Drakes cannot be overlooked by their general light gray effect and absence of conspicuous white wing patches; females are light chocolate brown with a white wing

stripe and stand out as several shades lighter than Black Ducks.

Long Island. Uncommon transient, rare in winter. A few birds breed, undoubtedly feral. March 11, 1922 (Montauk, Griscom and LaDow) to May 6; August 12 to December 20.

ORIENT. Uncommon transient and winter visitant, October 8, 1908 to May 6, 1907.

MASTIC. Fairly common transient; August 12, 1917 is the earliest fall date; the latest spring is April 28, 1917.

LONG BEACH. Very rare; March 26, 1911 (Griscom, Hix, and Rogers); March 23 and 30, 1922 (Bicknell); December 20, 1917 (Bicknell), and November 16, 1921 (Bicknell); two late January and one early February record (Bicknell); summer records refer to feral birds.

New York State. Apparently now very rare. No recent records in our area, except near Ossining, where it is uncommon (Brandreth).

BRONX REGION. Feral birds are now common throughout the year, and truly wild birds cannot be satisfactorily differentiated.

New Jersey. Reported as fairly common formerly at Morristown (Thurber); as uncommon at Summit (Hann). Unknown at Boonton (Carter); at Montclair (Howland). Uncommon but regular on the Newark Marshes (Urner). The earliest fall arrival date before me is September 18, 1921, Newark Marshes (Urner).

ENGLEWOOD REGION. Uncommon transient, rare in winter, most numerous in spring. March 7, 1910 (Griscom and LaDow) to April 23, 1922 (Griscom); October 11, 1911 (Griscom and LaDow) to December 4, 1904 (Hix).

BLACK DUCK (*Anas rubripes*)

The most abundant and best known of our fresh-water ducks, though the term is misleading so far as this species is concerned, as it does not hesitate to put right out to sea. It breeds commonly on the eastern half of Long Island, and now a few pairs nest every year as far west as Long Beach. Truly wild birds are not definitely known to breed along the Hudson, as they formerly did commonly. In northern New Jersey there is no definite proof of nesting at the present time,

but Black Ducks have been recorded in June and July on the Newark Bay marshes (Urner), on Overpeck Creek (Griscom and Weber), Swartwood Lake (Griscom), and Lake Mashipacong in the Kittatinny Ridge (Griscom), which must have nested somewhere in the vicinity. A pair bred on the Reservoir at Boonton in 1916 (Carter).

Long Island. Abundant resident, comparatively few breeding.

ORIENT. Common resident on Gardiner's Island; a common winter and a rare summer resident elsewhere.

MASTIC. Fairly common permanent resident, abundant in migration.

LONG BEACH. Abundant winter resident, now breeding regularly. Nest and 12 eggs found April 14, 1918 (Janvrin); another nest with 7 eggs, May 26, 1918 (Janvrin).

New York State. Common summer resident near Ossining (Brandreth), probably feral birds.

CENTRAL PARK. Feral birds are resident on the Park lakes. They are descended from wild birds.

BRONX REGION. Feral birds are now resident throughout the area.

New Jersey. Occurs on migration throughout the area, its abundance entirely dependent upon the suitability of habitat. There is much suitable breeding territory in northwestern New Jersey that is virtually unexplored.

ENGLEWOOD REGION. Abundant transient, and fairly common on the Hudson in winter; bred formerly (Cornelius Demarest); noted June 1920 (Weber); September 24, 1904 (Hix and Wiegmann) to May 16, 1920 (Granger, Griscom, Janvrin).

GADWALL (*Chaulelasmus streperus*)

The Gadwall is a western species of rare occurrence in this vicinity, and there is no historical evidence to show that it was ever common. Eaton mentions only four specimens from Long Island, but six additional specimens have been recorded since 1910, mostly shot at the South Side Club with Black Ducks. As is usual with the fresh-water ducks, the drake is quite unmistakable, but the female is exceedingly difficult to distinguish in life, and is usually confused with a Pintail or

Baldpate. Grayer than a Baldpate, it has long pointed wings, and a "long-gearred" appearance on the wing, like a small Pintail.

Long Island. Rare transient, October 16 to December 13; April 9 and 10.

ORIENT. Casual in fall and winter, October 17, 1908 to April 10, 1910.

MASTIC. One record.

EUROPEAN WIDGEON (*Mareca penelope*)

This handsome duck was formerly supposed to be an accidental visitant from the Old World, but is now known to occur regularly in North America. On Long Island it is a rare migrant or winter resident, and is undoubtedly of more frequent occurrence than the Shoveller. It is almost invariably associated with Baldpate, and is most likely to occur in places where that species is abundant, such as Gardiner's Island. I have seen seven drakes in four visits to this waterfowl paradise during the height of the migration of the Baldpate; there are numerous other records, and there is little doubt that it occurs there annually. The drake cannot be confused for an instant with any other species, but females or immature are not distinguishable in life from Baldpate.

Long Island. Rare transient or winter visitant, September 12 to April 7.

ORIENT. Rare winter visitant. October 8, 1908 to April 7, 1912, Gardiner's Island (Harper and Griscom).

MASTIC. Rare; has occurred as early as September 12, 1915 (J. T. Nichols and Griscom).

New York State.

BRONX REGION. A most satisfactory observation of a fine drake and a supposed female, February 9, 1922 on Pelham Bay (L. N. Nichols).

New Jersey.

ENGLEWOOD REGION. Casual; one record, spring of 1880 or 1881 (Cornelius Demarest). (See Chapman, Auk, 1889, p. 302.)

BALDPATE (*Mareca americana*)

The ponds of Gardiner's Island are indelibly associated in my mind with this trim and graceful duck. Here it is positively abundant, and I have seen it in numbers rivaling the winter flocks of Currituck Sound. Elsewhere on Long Island it is local, rare in most places, fairly common in others. Twenty-five years ago near New York City it was a very rare bird, but now can be seen annually in the spring in a few favored spots, such as Overpeck Creek. The Baldpate is graceful and slender in shape, and is smaller than the Mallard. The drake has a large amount of snowy white on the wing coverts, which will identify it at great distances in connection with its shape. The female resembles a Mallard, but has a distinct white patch in the wing rather than a stripe, and is lighter on the belly. Both sexes are loquacious, and the drake has a mellow whistling *whew, whew, whew*, which carries a considerable distance.

Long Island. Fairly common transient, occasional in winter; March 3 to April 16; August 9 to December 21, 1920 (Gardiner's Island, Griscom).

ORIENT. A winter visitant, common on Gardiner's Island, rare elsewhere. October 30, 1910 to April 14, 1916. Once August 9, 1898 (Plum Island, A. H. Helme).

MASTIC. Common fall transient.

LONG BEACH. Very rare, perhaps only a casual visitant during migrations. March 3, 1921 (Bicknell) to April 15, 1917 (Janvrin); October 12, 1921 (Griscom, Johnson, and Johnston).

New York State. Formerly a common transient on the Hudson (Mearns and Fisher); now rare, and very few recent records, spring only.

BRONX REGION. Wild birds reported to have flown into the Duck Pond at the Zoological Garden on a few occasions, but no record preserved (Crandall).

New Jersey. Formerly rare at Morristown (Thurber); no recent observations. Fairly common in spring on the reservoir at Boonton (Carter). Now regular but uncommon in spring in the Newark Marshes (Urner), where it has lingered as late as

April 30, 1921. Very rare in fall; recorded October 8 and 22, 1922 on the Newark Marshes (Urner).

ENGLEWOOD REGION. Uncommon transient in spring, a few birds occurring annually; rare in fall. February 27, 1921 (Griscom) to April 25, 1920 (Willard G. Van Name); October 29, 1912 (LaDow and Griscom). Formerly common (Cornelius Demarest); now increasing.

EUROPEAN TEAL (*Nettion crecca*)

Accidental from the Old World. J. G. Bell reported several specimens from Long Island taken in 1858 and earlier. Two birds shot out of a flock of Green-winged Teal at Merrick, L. I., about December 17, 1900.

GREEN-WINGED TEAL (*Nettion carolinense*)

This Teal can always be recognized by its small size, extremely rapid flight, and the entire absence of white in the wing. It is shy and more retiring than other fresh-water ducks, and prefers to skulk in the reeds close to shore, rarely coming out into open water. Few waterfowl have decreased more in this vicinity than our two Teal, which fifty years ago were abundant or common throughout. The present species is uncommon on Long Island, and ten years ago was practically unknown in the rest of this area. The cessation of spring shooting is beginning to have its effects, however, and since 1914 the Green-wing has been recorded in a few favorable localities in northern New Jersey each spring.

Long Island. Uncommon transient, occasional in winter, casual in summer. March 8 to May 3; September 4 to December 25; rare after November.

ORIENT. Rare and irregular visitant, occasional in summer. October 4, 1904 to April 17, 1917.

MASTIC. Uncommon transient, arriving as early as September 4, 1916 and noted in spring as late as May 3, 1919.

LONG BEACH. Very rare, perhaps casual; October 12, 1921 (Griscom, Johnson, and Johnston), October 25, 1921 (C. H. Lott), and December 6, 1917 (Bicknell); March 9 to 23, 1922 (Bicknell).

New York State. Formerly common transient on the Hudson (Mearns, Fisher). No recent records.

BRONX REGION. Reported several times in the Zoological Garden (Crandall), but no definite record preserved.

New Jersey. Up to thirty years ago, of regular occurrence throughout. Then practically unknown until 1915. Now uncommon spring migrant Newark Marshes (Urner); two recent spring records at Boonton (Carter). More birds seen during the spring of 1922 in northern New Jersey than in the preceding twenty years combined. The latest date is April 19, 1914 at Runyon (Miller). Only three recent fall records, November 20, 1921, Newark Bay marshes.

ENGLEWOOD REGION. Formerly common (Cornelius Demarest); not recorded again until April 3, 1915 (J. T. Nichols and Griscom); 3 on March 31, 1917, one collected (J. A. Weber); pair March 20, 1921 (Griscom); 7 on April 3, 1921 (Janvrin and Griscom). Seen several times in 1922, the last April 6 (M. S. Crosby). An observation of 6 birds seen on December 2, 1906, published in the Linnæan Society Abstract of Proceedings, is regarded as unsatisfactory by its author. No definite fall records until 1922; flock of 8 October 15 (Hix), and 1 on November 26 (Griscom and LaDow).

BLUE-WINGED TEAL (*Querquedula discors*)

This species can be distinguished from other ducks by its small size, and from the Green-winged Teal by the large amount of light bluish gray on the fore part of the wing. Its history in our area is much the same as that of its relative, but it is not so uncommon on Long Island. It is even rarer, on the other hand, in New Jersey and the balance of New York State, and has not as yet shown the slightest sign of increase. It is the first of the ducks to arrive in fall on Long Island, and the last to arrive in spring, rare before April and seldom seen after October. It is the only species for which there is no winter record.

Long Island. Not uncommon transient locally. Said to have bred many years ago. (March 9) March 24 to May 5; (August 12) August 28 to November 12 (December 12).

ORIENT. Occasional transient, September 10, 1910 to November 24, 1915; March 9, 1909.

MASTIC. Common transient in the fall, arriving as early as August 12, 1917; once in spring, April 16, 1922.

LONG BEACH. Very rare transient; August 28 (Braislin) to September 10, 1916 (Hix); May 5, 1912 (Charles Johnston and Griscom).

New York State. Formerly common on the Hudson, no recent records.

BRONX REGION. Very rare; April 16 to 26, 1905 (Beebe and Wiegmann); March 18, 1914 on Jerome Reservoir (Wiegmann).

New Jersey. Formerly common, now very rare. One recent record at Boonton (Carter); September 19, 1920, Newark Marshes (Urner); a pair on the Dead River near Mt. Bethel, April 2, 1911 (Griscom and LaDow). Otherwise unrecorded near the city except at Englewood.

ENGLEWOOD REGION. Formerly common (Cornelius Demarest). Now rare. April 3, 1920 (Griscom) to April 14, 1910 (Griscom and LaDow); October 15, 1922 (Hix) to October 28, 1911 (Griscom and LaDow).

SHOVELLER (*Spatula clypeata*)

The drake Shoveller is unmistakable even at a great distance. Its tremendous bill gives it a queer effect forward, and the striking dark and white pattern of its plumage, with the great amount of white in the wing, is readily observed. The female looks much like a Blue-winged Teal with a very long bill. This species has always been rare on Long Island, and it is not without significance that it has never been seen there by the present-day field ornithologists. Indeed it is doubtful if it occurs as frequently as the European Widgeon.

Long Island. Rare transient. February 12 to March 19; October 1 to November 29.

MASTIC. Rare visitant; October 14, 1916 (two birds killed by Dr. Rolfe Floyd).

New York State. One record at Ossining in October (Fisher); three birds shot there in the fall in the past 7 years (Brandreth).

BRONX REGION. A fine drake seen on the Baychester marshes March 22, 1920 (L. N. Nichols).

New Jersey.

ENGLEWOOD REGION. Casual on Overpeck Creek. Listed by Cornelius Demarest. Mr. J. A. Weber has seen a specimen

killed in the fall about 15 years ago. One drake observed April 3, 1921 (Janvrin and Griscom, Auk, 1922, p. 100).

PINTAIL (*Dafila acuta*)

When once the finer points of shape are learned in ducks, this species can be recognized at any distance by its long neck, thin body and narrow tapering wings, which have *no white patch or stripe*. The general color effect is decidedly gray. While strangely erratic in numbers, it is generally commoner in spring, and has shown a marked increase in recent years. Its preference for marshes and smaller bodies of quiet water accounts for its rarity at the eastern end of Long Island.

Long Island. Common transient, rare in winter; locally scarce at the eastern end; February 15 to May 3; August 12 to December 24.

ORIENT. Rare in fall, winter, and spring; September 23, 1914 to March 28, 1909.

MASTIC. Common transient, arriving in the fall as early as August 12, 1917, and remaining in the spring as late as May 3, 1919.

LONG BEACH. Rare transient; March 7, 1918 to April 10, 1919; September 2, 1920 to December 20, 1917; January 25, February 8 and 15, 1917 (all observations by Bicknell).

New York State. Formerly a common transient on the Hudson at Ossining (Fisher); now very rare in our area.

BRONX REGION. Very rare transient, one recent record, March 13 and 17, 1918 (Hix and L. N. Nichols).

New Jersey. A regular spring migrant now in several localities, common on Overpeck Creek and the Newark marshes (Urner). Common at Boonton (Carter). Rather erratic in numbers from year to year, but steadily increasing, flocks of several hundred birds noted in recent years. Only two fall records in many years. Noted as early as February 13, 1922 (Urner).

ENGLEWOOD REGION. Common spring transient, but erratic, sometimes abundant; February 27, 1921 (Griscom) to April 30, 1922 (Griscom); no fall record between December 3, 1904 (Wiegmann) and October 15, 1922 (Hix).

Wood Duck (*Aix sponsa*)

Formerly a common summer resident throughout the area. Now nests in a few scattered localities, and is uncommon to very rare as a transient. It is essentially a species of woodland swamps or forest-bordered streams, and always nests in hollow trees. The last few years of protection have yielded results, and this retiring bird is now noted more frequently, chiefly in late August and early September. The gorgeous drake is unmistakable, but the female is an obscure duck with a white wing patch and a white eye-ring. The note, a plaintive, whistled *oo-eeek*, is characteristic. The swamp at Van Cortlandt Park is the best place near New York City to observe the Wood Duck.

Long Island. Uncommon transient; rare in summer; breeds locally; March 23 to May 6; July 21 to November 27, and casually to December 16.

ORIENT. Rare visitant, except Gardiner's Island where it probably still breeds. A pair noted during the summer of 1920. December 16, 1908 is the latest date.

MASTIC. Uncommon transient; may breed. Noted May 6, 1916 and July 21, 1918.

New York State. Formerly common, now very rare and local.

CENTRAL PARK. Very rare visitant, formerly much more frequent. The recent records are September 21, 1904 (Bilderssee), September 18, 1909 (Hix) to early October, 1909 (Anne A. Crolius); May 6, 1910 (Griscom); September 29 to October 8, 1917 (Hix).

BRONX REGION. Still breeds regularly in the swamp at Van Cortlandt Park. Arrives as early as March 27, 1920 (E. G. Nichols). Migrants were unquestionably present September 9, 1916 (C. L. Lewis). The latest date is November 11, 1916 (Hix). As many as forty birds have been seen in a flock.

New Jersey. Formerly common throughout, and reported as having wintered on the Hackensack marshes (R. T. Morris). Now extirpated, or rare and local. Much suitable breeding territory in northwestern New Jersey is unexplored, however. Still breeds near Elizabeth (Urner), near Boonton (Carter), near Newfoundland (Miller), at Culver's Lake (Miller and Griscom).

Regular as a migrant in the last few years at Ridgewood (Johnson). Extreme dates are February 20, 1921 to November 7, 1921 near Elizabeth (Urner).

ENGLEWOOD REGION. Formerly a common breeder (Cornelius Demarest); now very rare, only two recent records, August 17, 1913 (Hix), and April 25, 1915 (Johnson).

REDHEAD (*Marila americana*)

No Duck has a more varied or irregular status in our area than this fine species. In parts of eastern Long Island it is locally a common transient, such as on Gardiner's Island and the Great Pond at Montauk. It also occurs regularly on East, Moriches, and Great South Bays. But elsewhere in the region it is a very rare bird, and fortunate indeed is the observer who sees this bird anywhere near New York City.

The red head of the drake appears black at any considerable distance, but it can be told from a Scaup by the gray, instead of white, wing-stripe. The female is more uniformly brownish than the Scaup, and has no white ring around the base of the bill.

Long Island. Common transient, uncommon in winter; irregular and local. February 15 to April 15; September 30 to January 9.

ORIENT. Fairly common winter visitant at Gardiner's Island; elsewhere irregular and rare. October 6, 1906 to April 12, 1912.

MASTIC. Uncommon transient, rare in winter.

LONG BEACH. Very rare; seen several times formerly (C. H. Lott); March 12, 1911 (Griscom and LaDow).

New York State. Formerly a common transient on the Hudson at Ossining (Fisher), still fairly common (Brandreth); almost unknown elsewhere.

CENTRAL PARK. Casual on the Reservoir, January 1, 1903 (Rogers).

BRONX REGION. Casual on Jerome Reservoir, March 21 to April 4, 1914 (numerous observers); January 10, 1915 (Pangburn).

New Jersey. Practically unknown throughout the area.

ENGLEWOOD REGION. Local duck hunters report birds of this species occasionally, but there is no evidence to credit these statements. One definite record, October 9, 1921 (Griscom and Johnson).

CANVASBACK (*Marila valisineria*) Fig. 5

The status of the Canvasback in this region is like that of the Redhead, except that it is rare in the few places where that species is common. Consequently, the almost regular occurrence of this rare duck on the Jerome Reservoir, New York City, is one of the phenomena of local ornithology, for which I have no explanation to offer. The larger size, the sloping profile of head and bill, and the shining whiteness of the back will always distinguish it even at long distance.

Long Island. Rare and local transient, February 11 to April 16; October 11 to December 24.

ORIENT. One record, November 23 to 25, 1907 (Gardiner's Island, Chapman).

MASTIC. Rare transient, October 11, 1916 to December 24, 1916.

LONG BEACH. Reported by C. H. Lott as seen formerly now and then, and one during the winter of 1920-21.

New York State. Given as a rare transient formerly at Ossining (Fisher); Mr. Courtenay Brandreth informs me that in the past two years it has shown a marked increase there; very rare elsewhere; a recent record is Staten Island, January 20, 1918 (Cleaves).

BRONX REGION. The Jerome Reservoir records are as follows: Middle of January to March 28, 1914 (seen by almost every observer of note); December 31, 1914 (Griscom and A. A. Saunders) to March 21, 1915 (L. N. Nichols); December 25, 1916 (L. N. Nichols); March 17, 1921 (L. N. Nichols); December 1, 1921 (L. N. Nichols). One record for Pelham Bay, February 9, 1922 (L. N. Nichols).

New Jersey.

ENGLEWOOD REGION. Formerly occasional in the fall (Cornelius Demarest); now very rare or casual; 10 drakes on Overpeck Creek, March 5, 1910 (Griscom and LaDow); pair shot on the Creek, November, 1917 (Weber, who writes he saw the heads); two on the Hudson, January 27, 1912 (Griscom and Hix).



Painting by L. A. Fuertes

Fig. 5. Canvasback.

SCAUP DUCK (*Marila marila*)

The Scaup Duck is an abundant transient and common winter visitant on Long Island, but is now rare or uncommon at the extreme western end in the section of the seaside resorts. Elsewhere in our territory the lack of shooting makes it practically impossible to differentiate between this species and the Lesser Scaup. The females are absolutely indistinguishable in life. The drakes differ in the gloss of the head, greenish in the Scaup, purplish in the Lesser Scaup, but it requires the most extraordinary combination of proximity and bright light to see this character, and such a chance comes only a few times in a decade. As a rule the Lesser Scaup is the more frequent species on smaller bodies of water and creeks, and many observers consequently imagine that it is the Greater Scaup which they see off the ocean beaches and in the bays of Long Island, but unfortunately the facts do not bear out this comfortable theory. In other words the two species cannot be identified on the basis of the size of the body of water in which they are seen. Some skins in museums are unidentifiable. Comparison of size with other species of ducks is also utterly untrustworthy.

Long Island. Abundant transient, common in winter. September 1 to May 30. This or the next species occasional in summer.

ORIENT. Abundant winter resident; occasional in summer. September 12, 1907 to May 19, 1916. Average, October 10 to April 25.

MASTIC. Abundant transient.

LONG BEACH. Up to ten years ago Scaups were common winter residents; they are now relatively uncommon. On three occasions birds believed to be Lesser Scaups have been identified as such with reasonable surety. The extreme dates are September 20, 1909 (Griscom) to May 30, 1911 (Griscom and LaDow), and June 8, 1915 (Bicknell), but in no case is the species known.

New York State. Both species are reported as common on the Hudson at Ossining (Fisher and Brandreth). Scaups are now rare elsewhere on the river in our area, and data regarding the two

species are lacking. They are seen chiefly in late March and early November. Scaups are regular in small numbers in the Lower Bay, but the status of the two species is not known.

CENTRAL PARK. Casual on the Reservoir, two records. March 29, 1912 (Hix), and April 6, 1913 (Fleischer), the species indeterminable in both cases.

BRONX REGION. Scaups are regular but uncommon winter visitants on the Sound, species never satisfactorily determined; October 21, 1905 (Wiegmann) to April 12, 1918 (E. G. Nichols). Both species were present on the Jerome Reservoir, March 15 to April 4, 1914, and both species were positively identified by numerous observers.

New Jersey. Scaups occur regularly on Newark Bay, but the status of the two species is unknown. No data available for inland localities except Boonton, where they are fairly common on the Reservoir (Carter).

LESSER SCAUP (*Marila affinis*)

For general comment see the preceding species. Records given below refer definitely to this species.

Long Island. Abundant transient, uncommon in winter; October 1 to May 20.

ORIENT. Rather rare transient and winter visitant; October 20, 1905 to May 20, 1916.

MASTIC. Common transient.

LONG BEACH. I do not know of any absolutely certain identification of this species.

New York State.

BRONX REGION. Positively identified on the Jerome Reservoir, March 24 to April 4, 1914 (Griscorn, Johnson).

New Jersey.

ENGLEWOOD REGION. Scaups are regular transients on Overpeck Creek, common in spring, less so in fall. February 27, 1921 (Griscorn) to May 18, 1913 (Griscorn, LaDow, and Lenssen); casual June 8, 1909 (Griscorn and LaDow); about October 15, 1910 (shot by local hunter) to November 4, 1910 (shot by local hunters). Numerous birds killed on the Creek have been examined, and have been invariably the Lesser Scaup (Griscorn and Weber). There is no evidence that the Greater occurs, and it is reasonably certain that the great majority of birds seen are the Lesser.

RING-NECKED DUCK (*Marila collaris*)

There is still some doubt about the exact status of this species on Long Island. Giraud, whose account shows that he was thoroughly familiar with it, states that "a few are seen almost every spring and autumn along the south shore of Long Island," and De Kay makes approximately the same comment. Dutcher, however, regarded it as accidental, and gave three definite records, the only dates being April 27 and November 3. It most certainly cannot be regarded as strictly accidental, and it would be easily overlooked among the large number of Scaup Ducks. The female looks like a small Redhead, and is very difficult to distinguish from a Scaup. The male, however, is easily recognized, when sitting on the water, by its tufted, puffy head, black back, and darker bill. The wing stripe is gray, not white.

Long Island. Probably a very rare or casual transient. Only three records. Observers should look out for this bird most carefully. A single individual, possibly crippled, was observed several times near Port Jefferson from mid-October, 1918 to March 16, 1919 (Theodore Dreier).

GOLDEN-EYE (*Clangula clangula americana*)

The Golden-eye or Whistler is one of the most conspicuous winter waterfowl on the bays of Long Island. At the western end, however, it is decidedly uncommon, occurring chiefly after severe cold waves, when it is temporarily frozen out of more suitable quarters. On the Hudson it is now rare, and occurs rarely or casually on smaller bodies of water inland. It is preëminently a cold weather duck, rarely arriving in numbers before December, and only stragglers remain after April 1. It is, therefore, quite surprising that inland records are chiefly in April.

Perhaps the best place near New York City to see the Whistler is Princes Bay, Staten Island, where a few birds occur every winter. The puffy head, short neck, large amount

of white in the wing, the rapid wing-beats, and the musical whistling of the wings, all help to identify this species almost to the limit of vision.

Long Island. Common winter visitant, (October 18) November 3 to April 19 (April 27). One June record.

ORIENT. Common winter visitant, October 18, 1912 to April 22, 1917; average, November 12 to April 5. One June record at Orient.

MASTIC. Common winter visitant, November to April 27, 1919.

LONG BEACH. Rather rare; seldom noted except during severe cold waves, and leaving immediately after the weather moderates. November 3, 1921 (Bicknell) to April 14, 1918 (Janvrin).

New York State. Regular but uncommon on the Lower Bay. Now rare on the Hudson in our area except at Ossining, occurring chiefly in midwinter; rare on the Sound.

BRONX REGION. Rare winter visitant on the Sound, November 26, 1911 (Hix) to April 12, 1918 (E. G. Nichols); occasional on the Jerome Reservoir, observed as late as April 15, 1914 (J. Kieran).

New Jersey. Of regular occurrence on Newark Bay (Urner); one mid-April record on the Reservoir at Boonton (Carter) Casual on a small pond near Plainfield, May 18, 1913 (Miller). Data lacking from the lakes of northern New Jersey.

ENGLEWOOD REGION. Usually rare, sometimes common on the Hudson in January and February (Griscom, J. T. Nichols, and others); very rare on Overpeck Creek, perhaps only casual; a pair July 28, 1911, male collected (Weber); April 11, 1920 (Griscom and Janvrin); a pair April 9, 1922 (Griscom and Laidlaw Williams). November 12, 1922 (Hix).

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BARROW'S GOLDEN-EYE (*Clangula islandica*)

Accidental visitant from the far north. One specimen taken on Long Island many years ago is in the collection of the Long Island Historical Society. Mr. Latham, however, writing from Orient, states that it is occasional in winter there from January 5, 1909 to March 3, 1918. It is to be hoped that this most interesting statement will be confirmed

by specimens. There is every possibility that the status of this species may be analogous to that of the Black Guillemot. Unfortunately its identification in life is difficult, instead of easy, and only the adult male is identifiable. The white spot before the eye is larger and somewhat crescent-shaped, instead of round. This is readily visible at close range and in good light.

BUFFLEHEAD (*Charitonetta albeola*)

This, the smallest and most graceful of our Sea Ducks, is unfortunately nowhere common in our area except at the eastern end of Long Island, but occurs inland a little oftener than the Whistler. There is every reason to believe that its numbers are steadily decreasing. The male is unmistakable at a reasonable distance, but the female is a small edition of the Golden-eye, unless the white spot back of the eye is visible. Observers occasionally report flocks of "hundreds" near New York City. Such birds are almost certainly other species.

Long Island. Fairly common winter visitant on the eastern half of the island, rare at the western end near New York City. October 1 to April 20. Casually as early as September 16, and as late as May 13.

ORIENT. Common winter resident, October 27, 1917 to May 10, 1910; average, November 15 to April 15.

MASTIC. Uncommon winter visitant.

LONG BEACH. Very rare, usually present for a few days in midwinter after severe cold, and leaving as soon as the weather moderates. Noted November 25, 1920 (Crosby, Griscom, and Janvrin); not recorded after February.

New York State. Formerly fairly common on the Hudson at Ossining (Fisher), now rare (Brandreth). Still occurs off Staten Island and on the Sound.

BRONX REGION. Rare on the Sound, decreasing; December 7, 1921 to March 24, 1922 (L. N. Nichols).

New Jersey. Now very rare or casual in our area. Casual on the Reservoir at Boonton, April 2, 1922 (Carter); January 7, 1922 on Newark Bay (Urner).



Painting by I. A. Fierres

Fig. 6. Old-squaw.

ENGLEWOOD REGION. Probably only a casual migrant and winter visitant. One record on the Hudson, January 27, 1912 (Griscom and Hix); on Overpeck Creek, October 20, 1907 (Hix and Rogers); November 11, 1916 (Weber); October 20, 1912 (Griscom and S. V. LaDow); March 20, 1921 (Griscom); April 16, 1922 (Griscom and Johnson).

OLD-SQUAW (*Harelda hyemalis*) Fig. 6

The grotesquely shaped and strikingly patterned Old-squaw is one of our commonest winter sea ducks, and is a characteristic species off the ocean beaches. Its stumpy body, thin neck, and long narrow wings render identification easy at great distances. Away from the coast it is rare or unknown.

Long Island. Abundant winter visitant, stragglers occurring in summer; October 15 to May 27.

ORIENT. Abundant winter visitant, recorded in June, July, August, and September; October 15, 1908 to May 23 1913; average, October 25 to May 10.

MASTIC. Uncommon winter visitant.

LONG BEACH. Common winter visitant, October 25, 1917 (C. H. Lott) to May 27, 1919 (Griscom and LaDow). Seldom seen in May and rarely common much before Christmas. Single birds noted June 28, 1917 and June 16, 1921 (Bicknell).

New York State. Regular in the Lower Bay, and once observed between Staten Island and the Battery. Formerly fairly common on the Hudson at Ossining (Fisher), now rare, but 23 were killed in the fall of 1921 (Brandreth). Otherwise unknown.

New Jersey. Given formerly as a rare migrant at Morristown (Thurber), but there are no specimens in his collection to confirm so unlikely a statement. One record for Newark Bay, January 1, 1922 (Urner).

ENGLEWOOD REGION. Casual; small flock on the Hudson, October 26, 1912 (LaDow); once on Overpeck Creek, April 7, 1918 (Johnson).

HARLEQUIN DUCK (*Histrionicus histrionicus*)

A rare winter visitant to the eastern end of Long Island, where the coast is steep or rocky, casual elsewhere. There

are about fifteen definite records, the last, February 27, 1918 at Orient (Latham), and February 22, 1921 at Montauk Point (Crosby and Griscom). The male is absolutely unmistakable, but the female is an obscure little duck, suggesting a large Bufflehead in shape, with two white spots on the side of the head.

Long Island. Rare winter visitant, November 10 to February 27.

ORIENT. Rare winter visitant, November 11, 1895 to February 27, 1918.

MASTIC. One record, first week of November, 1915.

AMERICAN EIDER (*Somateria dresseri*)

A very rare winter visitant to Long Island. Eaton gives five records, between November 8 and March 25, and I know of only one reliable observation, given below. There is little difficulty in separating the adult males of the two Eiders. This species has most of the back, and the whole front part of the wing, white. The King Eider has the back mostly black, and the wing black with a conspicuous white patch. Females and young are generally inseparable in life, but the *adult* female King Eider is identifiable under favorable circumstances, in having the back and scapulars *widely* margined with ochraceous or *rusty*, giving a more contrasted color effect.

Long Island. Very rare winter visitant, November 8 to March 25.

ORIENT. One record, February 2, 1902 at Orient.

New York State. Casual at Ossining, December 14, 1894 (A. K. Fisher).

KING EIDER (*Somateria spectabilis*)

Long Island. A regular winter visitant to extreme eastern Long Island, usually rare, sometimes not uncommon. Casual on the South Shore and Peconic Bay. November 1 to April 27. Casual in October.

ORIENT. Rare winter visitant, December 1, 1901 to March 4, 1905.

MASTIC. Casual, early October 1912, specimen taken by W. S. Dana.

LONG BEACH. Mr. Bicknell writes me that C. H. Lott shot two Eiders off Point Lookout about fifteen years ago and another early in November 1921, a female or immature bird. In neither case was the species determined, but the King Eider is much more likely.

AMERICAN SCOTER (*Oidemia americana*)

This is our least abundant Scoter, rarely occurring in any large numbers, but it is observed more frequently at the extreme western end of Long Island than the Surf Scoter. There is much loose identification of Scoters off-shore by size and other trivial characters. Observers should remember that distinguishing them in life is quite critical, and requires close range and good light. Under such circumstances the drakes present little difficulty, but females and young should be positively named with the greatest caution. A winter trip to Montauk Point would render a student better acquainted with these birds than five seasons of squinting at them through a telescope from the beaches near the City, where they are usually way out at sea.

Years ago Mearns, Fisher, and Stearns regarded all three Scoters as abundant migrants on the Hudson River, and Mr. Courtney Brandreth assures me that the White-winged is common, and the other two fairly common on the Tappan Zee at the present time. Elsewhere on the Hudson the White-winged Scoter is now a rare bird, not only in our area but also in Dutchess County to the north (Crosby); the other two species are unknown, and there are no records other than the statements of the gentlemen quoted. This is exactly in accord with the facts, as generally established at present, namely, that the White-winged Scoter is rare on small bodies of water inland, the American is very rare or casual, and the Surf Scoter is purely casual anywhere inland except the Great Lakes. That this species in particular should have been

abundant on the Hudson River at one of its narrowest sections fifty years ago is remarkable. We cannot help speculating, therefore, whether in former years the Hudson may not have been a main highway to the breeding grounds of the northwest, now partially closed with the advent of railroads, boat traffic, and the sewage of many towns and cities.

Long Island. Fairly common winter visitant, September 5 to May 26. Casual in summer.

ORIENT. Uncommon winter resident, recorded in summer; September 20, 1907 to May 26, 1920.

MASTIC. Uncommon winter visitant.

LONG BEACH. Uncommon, but regular transient, occasional in winter; September 5, 1910 (Hix and Rogers) to May 30, 1918 (Bicknell); a few birds through the summer of 1921 (Bicknell).

New York State. Unknown at the present time except on the Hudson near Ossining, though it might occur in the Lower Bay or on the Sound.

New Jersey. Casual on Overpeck Creek, Bergen County, an adult male, October 15, 1922 (Hix).

WHITE-WINGED SCOTER (*Oidemia deglandi*)

Our most abundant Scoter, and the only one known to occur regularly away from the coast at present. In flight the white wing patch makes it easily identifiable at great distances, but when sitting on the water, close range is absolutely necessary.

Long Island. Abundant winter visitant, occasional, perhaps regular, in summer; (August 21) September 15 to June 10.

ORIENT. Abundant winter resident, often common as a non-breeding species in summer. September 15, 1907 to June 10, 1905; average, September 20 to May 20.

MASTIC. Common winter visitant, noted July 10, 1921.

LONG BEACH. Common transient and winter visitant. August 23, 1917 (Bicknell) to June; a few during the summer of 1921 (Bicknell).

New York State. Occurs regularly in the Lower Bay and rarely (?) on the Sound; now very rare on the Hudson in our area except near Ossining, where it is a common transient (Brandreth).

BRONX REGION. Rare on the Sound, a positive identification, February 4, 1918 (Hix). Mr. L. N. Nichols, who has rendered invaluable assistance in preparing the account of this region, tells me that Scoters are occasionally seen on the Sound, but he regards the identification of the species as unsatisfactory. Casual on the Jerome Reservoir, an adult male, March 21 to April 14, 1914 (numerous observers).

New Jersey. An old specimen from Culver's Lake, Sussex Co., now in the Dwight collection, but it may have come from somewhere else, as the labelling of this collection is known to have been very careless. This species might occur casually on the larger lakes, from which I have no data.

ENGLEWOOD REGION. Very rare on the Hudson; October 19, 1910 (Griscom), March 15, 1913 (Griscom), in each case a small flock; casual on Overpeek Creek, a drake, May 14, 1920 (Griscom).

SURF SCOTER (*Oidemia perspicillata*)

The Surf Scoter is the second in point of abundance on Long Island. At the eastern end it occasionally outnumbers the White-winged, but at the extreme western end is less common than the American. Mr. Chapin tells me that this species occurred regularly off Staten Island up to 1908, when his observations ceased. Otherwise unknown in our area.

Long Island. Abundant winter visitant, occasional in summer; (September 1) October 10 to May 25 (June 4).

ORIENT. Common winter resident, occasional in summer. September 9, 1907 to June 4, 1919. Average September 25 to May 6.

MASTIC. Common winter resident.

LONG BEACH. September 5, 1910 (Hix and Rogers) to May 31, 1915 (Janvrin); occasional in summer (Bicknell).

New York State. Occurred regularly off Staten Island up to 1908 when observation ceased (Chapin). Mr. Brandreth assures me that this species is still fairly common on the Tappan Zee section of the Hudson near Ossining. Otherwise unknown.

RUDDY DUCK (*Erismatura jamaicensis*)

The little Ruddy Duck is an irregular migrant to eastern Long Island, sometimes common in a few favored localities.

Near New York City and elsewhere in our territory it has been for years a very rare bird. Perhaps the most favored spot near the City is Overpeck Creek in northern New Jersey, where it occurs occasionally in late March and early April. Adult males in full plumage are rarely seen, but the small size and dumpy shape are characteristic. On the water the tail is always cocked up like a Wren's, while in flight the short rounded wings and the rapid wing beats make it appear like a gigantic bumble-bee. It is often absurdly tame.

Long Island. Irregular, sometimes common in fall, rare in mid-winter. (September 21) October 5 to January 1. Spring migration data are scant, recorded May 13, May 22 and June 10.

ORIENT. A rare and erratic species at Orient, more frequent on Gardiner's Island; October 27, 1909 to June 10, 1910.

MASTIC. No record.

LONG BEACH. Very rare; May 13, 1917 (Janvrin); December 25, 1921 (Bicknell).

New York State. A common transient at Ossining (Fisher and Brandreth); now very rare elsewhere.

CENTRAL PARK. Casual on the Reservoir, October 30, 1911 (Griscom and Hix), six birds, two males. They permitted a park attendant to row up twice, and shoot two.

BRONX REGION. Very rare; two records, February 21, 1915 (L. N. Nichols); December 25, 1921 (Hix).

New Jersey. Formerly a rare transient at Morristown (Thurber). Now very rare or casual. One record on the Boonton Reservoir, April 11, 1920 (Carter). One record near Montclair, April 23, 1915 (Howland). One record near Elizabeth, October 24, 1920 (Urner).

ENGLEWOOD REGION. Very rare transient on the Hudson, one record, March 23, 1913 (W. W. Grant and Griscom); formerly common on Overpeck Creek, known as "Sleepy-head" (notes of Cornelius Demarest made prior to 1880); recorded casually on the Ice Pond at Nordhoff, a pair July 31 to August 21, 1909 (Hix); otherwise not recorded until 1912; now a rare transient, chiefly in spring; October 20, 1912 (Griscom and LaDow); November 21, 1916 (Weber); October 7, 1917 (Weber); April 3 to May 18, 1920 (numerous observers); March 27 and April 3, 1921 (Griscom and others); April 16, 1922 (Griscom, Johnson, and Laidlaw Williams).

LESSER SNOW GOOSE (*Chen hyperboreus hyperboreus*)

This subspecies ranges even further west than the Greater Snow Goose, and is of accidental occurrence on the Atlantic coast. Two specimens, the dimensions of which fall within the limits given for this race, have been taken on Long Island, Shinnecock Bay, October 8, 1881, and Montauk Point, October 29, 1888.

Mr. Chas. A. Urner has recorded one out of three birds killed on the Newark Marshes by his brother. The skin was too damaged for preservation, but the wing measurement corresponded to that given for this race. (Auk, 1921, p. 120).

GREATER SNOW GOOSE (*Chen hyperboreus nivalis*)

The Snow Goose is a decidedly rare transient on Long Island, and of casual occurrence elsewhere. Fortunately it is one of our rare species that could hardly be confused with any other. I follow Eaton in assuming that all sight records refer to this subspecies, as the Lesser Snow Goose is purely accidental on the Atlantic coast.

Long Island. Rare transient, occasional in winter; April 3 to April 17; September 28 to December (January 30).

ORIENT. Rare visitant, October 1889 (Dutcher) to April 17, 1919.

LONG BEACH. Two records, November 24, 1901, several flocks seen flying west (reported to Braislin by a member of the life-saving crew); April 15, 1917, flock of 25 to 30 flying east over the Golf Links (Janvrin).

New York State. Casual at Ossining, several hundred April 8, 1882 (Fisher).

BLUE GOOSE (*Chen caerulescens*)

Another accidental visitant from the Northwest. Eaton gives four records for Long Island, one of them a sight record by Mr. Arthur H. Helme, who reports a flock of ten birds. Two recent captures are given by Grinnell from Montauk, a single bird November 1911 and five birds October 1912. The adult Blue Goose is a dusky grayish bird with a white head and upper neck, and is unmistakable in life.

WHITE-FRONTED GOOSE (*Anser albifrons gambeli*)

An accidental visitant from the West. Five specimens have been taken on Long Island in October, November, and March, and Mr. Arthur H. Helme reports a flock of eleven near Miller's Place, April 5, 1883. The generally gray color of this Goose, and the white belly, make it readily identifiable in life.

CANADA GOOSE (*Branta canadensis*)

Thanks to its wariness the Wild Goose is still a common bird on Long Island, and may occasionally be seen flying high overhead almost anywhere inland. Few people are insensible to the charm of the wedge-shaped flock, honking sonorously as they wing their way northward, bound for some remote and unknown destination.

Long Island. Common transient, regularly wintering locally; February 15 to May 7 (May 16, 1921, Easthampton, W. T. Helmut, Jr.); (September 8) October 1 to January.

ORIENT. Common transient; irregular, sometimes common in winter. October 4, 1913 to May 5, 1915; average October 10 to April 22.

MASTIC. Fairly common winter visitant.

LONG BEACH. Fairly common transient, frequently wintering, sometimes in numbers, as in 1911 to 1912 and 1913 to 1914. October 7, 1918 (C. H. Lott) to May 7, 1922 (Hix), May 17, 1914 (Bicknell) and May 29, 1919 (M. S. Crosby); earliest spring arrival February 15, 1917 (Bicknell).

New York State. Occasionally seen flying overhead, seldom alighting; no longer common on the Hudson.

CENTRAL PARK. Now very rarely seen flying over. May 2, 1899 (Chubb); May 18, 1900 (Chubb); October 11, 1904 (Hix); November 21, 1918 (Chubb).

BRONX REGION. Rare transient, seldom alighting. October 9, 1915 (Hix and L. N. Nichols) to December 22, 1909 (Griscom and LaDow); March 13, 1915 and March 15, 1920 (E. G. and L. N. Nichols).

New Jersey. Still regular transient, but seldom alighting, throughout our area. Fairly common at Montclair (Howland); regular at Boonton (Carter); uncommon on Newark Bay (Urner).



Painting by Courtenay Brandreth

Fig 7. Brant.

ENGLEWOOD REGION. Uncommon transient, rarely alighting. October 7, 1917 (Johnson and Rogers) to December 6, 1919 (Bowdish); March 18, 1911 (Griscom) to May 3, 1914 (Griscom).

BRANT (*Branta bernicla glaucogastra*) Fig. 7.

The Brant is not hard to distinguish from its bigger relative. The wing beats are more rapid, the honking is less sonorous, and it is generally darker forward, with more white on the tail coverts. While a common bird on Long Island, it is more marine than the Canada Goose, and alights in numbers in comparatively few places. Fisher records it as accidental at Ossining, and Mr. Courtenay Brandreth informs me that another was shot there in November, 1920. These are our only inland records.

Long Island. Common transient, uncommon in winter. February 15 to May 28; (September 29) October 26 to January 1.

ORIENT. Common winter visitant at Gardiner's Island; rare and irregular at Orient. November 25, 1912 to April 13, 1919.

MASTIC. Uncommon.

LONG BEACH. Uncommon transient, occasionally wintering. October 26, 1919 (Janvrin) to May 18, 1913 (Hix); earliest spring arrival February 12, 1920 (Bicknell); casual in the fall as early as September 20, 1921 (Bicknell) and October 12, 1917 (Bicknell).

BLACK BRANT (*Branta nigricans*)

An accidental visitant from the far west. There are three records for Long Island; Islip, 1840, Babylon, spring of 1889, and near Babylon, March 31, 1908 (Herrick, Auk, 1908, p. 473), the last apparently overlooked by Eaton.

BARNACLE GOOSE (*Branta leucopsis*)

An accidental visitant from Europe. There are two records for Long Island; Jamaica Bay, about October 20, 1876 and Fire Island, October 12 to 16, 1919. (See Forest and Stream, March 1920.)

WHISTLING SWAN (*Olor columbianus*)

In colonial times apparently a regular transient, now a very rare or casual visitant. There are only four definite records for Long Island, as summarized by Eaton, the dates ranging between November 5 and January 1. Casual at Scarboro late November, 1897 (Gerald H. Thayer). See page 382 for discussion of Mute Swan.

Long Island. Very rare or casual transient, November 5 to January 1.

ORIENT. Several records in fall and winter; November 15, 1915 to February 7, 1914. [There is the possibility that one or more of these sight records may refer to the Mute Swan L. G.]

WHITE IBIS (*Guara alba*)

Accidental visitant from the southern states. Two old records for Long Island, summer of 1836, and early March 1843.

GLOSSY IBIS (*Plegadis autumnalis*)

Accidental visitant from the South. Two old records for Long Island, September 12, 1847 and October 10, 1848.

WOOD IBIS (*Mycteria americana*)

Accidental visitant from the South. One record for Long Island in the Orient region, East Marion, June 21, 1890.

AMERICAN BITTERN (*Botaurus lentiginosus*)

This shy and retiring Heron is still a fairly common transient in our area in suitable localities, but is steadily decreasing as a summer resident, due to the constant draining and improvement of marsh lands. Those observers, who would really know the Bittern, must seek out a cat-tail marsh or reedy bog, and be prepared to get both wet and muddy. The bird may sometimes be located by its "pumping" in the spring, but this is rarely heard during the day. Many

observers confuse young Night Herons with Bitterns. The latter have black-tipped wings, sharply streaked necks, and a buffy-brown, rather than a grayish-brown color effect.

Bitterns arrive on their breeding grounds about the middle of April. Migrants can be found up to the end of May. In October and November they are common, and more generally distributed than any other time of the year.

Long Island. Common transient, rare and local summer resident, rare in winter. (April 3) April 16 to November 18 (rarely to December and January). Nest with two young and two eggs found June 14, 1914 on Jones Beach (R. L. Peavey), and another found in the same place May 27, 1922 (Crosby, Griscom, Janvrin, Johnson).

ORIENT. Formerly common, now a rare transient; one breeding record, Orient, 1910; occasionally winters. April 3, 1907 to May 10, 1917; July 25, 1909 to December 6, 1912.

MASTIC. Fairly common transient, rare summer resident.

LONG BEACH. Apparently uncommon in the spring, April 12, 1917 (Bicknell) to June 9, 1921 and July 7, 1921 (Bicknell); regular in the fall, August 16, 1919 (Hix and Rogers) to December 24, 1920 (Bicknell); the 1921 dates indicate that the bird doubtless breeds.

New York State. Now a rare transient in our area, and probably extirpated as a summer resident.

CENTRAL PARK. Casual transient; May 10, 1886 (E. T. Adney); May 10, 1898 (S. H. Chubb); April 19, 1903 (C. G. Abbott and M. S. Crosby); May 17, 1917 (Janvrin).

BRONX REGION. Now a rare transient. Bred in 1917 in a swamp near the Gun Hill Road R. R. station. An early arrival date is April 5, 1913 (G. Kingsley Noble). Noted October 14, 1905 (Hix) in a locality long since destroyed.

New Jersey. In our area a fairly common transient, wherever suitable conditions still exist. Still breeding locally near New York City, and increasing northwestward. In the more remote sections of Sussex and Warren Counties, almost every marsh, swamp, or bog contains a pair, and there is much suitable territory unexplored, but I have never seen it in the higher swamps of the Kittatiny Ridge, Bearfort, or Wawayanda Mountains. Earliest spring arrival April 3, 1921 near Plainfield (Miller).

ENGLEWOOD REGION. Regular transient, commonest in fall; probably breeds in the Overpeck Marshes, where it has



[Photograph by A. A. Allen]

Fig. 8. Least Bittern.

been heard pumping in June (Griscom and Weber). April 13, 1914 (Bowdish) to May 18, 1919 (Griscom); September 25, 1921 (Griscom and Johnson) to December 9, 1919 (Weber).

LEAST BITTERN (*Ixobrychus exilis*) Fig. 8.

Few of our birds are more secretive and more easily overlooked than the Least Bittern. It prefers dense cat-tail marshes, and it is ordinarily a pure "fluke," if it is seen flying a short distance just above the reeds. As a result, its exact distribution and migration period in the region is unknown. Moreover, it is one of our breeding species which is apparently casual as a migrant away from its nesting grounds.

Fifteen years ago several colonies were known near New York City, and it was properly regarded as a common summer resident. The territory, however, on Long Island City and at Coney Island is now destroyed. Observers should make particular efforts to discover breeding colonies of this species, as much suitable marsh land remains, which has never been carefully explored.

Long Island. Formerly a very local summer resident, but locally common. All the breeding stations near New York City now destroyed. Probably breeds on Jones Beach. Casual elsewhere. (April 27) May 14 to September 12, 1921 at Shinnecock (C. Johnston) and September 21, 1922 at Lawrence (H. F. Stone). Casual December 12, 1895, Long Island City, specimen now in the American Museum.

ORIENT. Casual transient, June 4, 1907.

MASTIC. Very rare transient, May 14, 1916 and August 23, 1919.

LONG BEACH. Casual, May 26, 1918 (Janvrin) and May 30, 1918 (Bicknell).

New York State. Status in our area not fully known. Unknown on Staten Island (Chapin). Still breeds near Ossining (Brandreth).

BRONX REGION. Bred in the swamp in Van Cortlandt Park in 1918 (Chubb and Lewis), noted first on May 30; reported in July, 1921 in a swamp north of Van Cortlandt (Bernard Fread, a young observer whose testimony in this case was convincing); noted September 19, 1915 at Clason

Point (L. N. Nichols). Formerly bred in the marshes near Dyckman Street, these localities now destroyed.

New Jersey. The Newark Marshes colony explored by Messrs. Hann, Callender and Abbott is now destroyed. There are, however, vast stretches of the Newark and Hackensack marshes which are unexplored. Reported years ago as nesting at Morristown (Thurber), Paterson (J. H. Clark), Summit (Holmes, who found no nests). We do not know whether the bird is still to be found in these localities. Further north and west the Least Bittern breeds definitely near Newton, along the Paulin Kill.

ENGLEWOOD REGION. Rare summer resident on the Overpeck Creek marshes. Found breeding twice (Weber), and specimen taken August 31, 1917; noted in late May, 1919 (Rogers).

GREAT BLUE HERON (*Ardea herodias herodias*)

The Great Blue Heron, often called the Crane, is found throughout our area, as a transient, but is always commonest near the coast and of more general occurrence in fall. While occasionally noted in late June and early July, no definite breeding colony is known, but such may be looked for on Long Island and in extreme northern New Jersey.

Long Island. Common transient; occasional in winter and also in summer; probably a rare and local breeder, but no definite colony known. March 24, 1910, Gardiner's Island (Griscom and LaDow) to June 12; July 12 to December 2, 1911, Gardiner's Island (Griscom, LaDow, Miller).

ORIENT. Not common transient; rarely winters; recorded in summer. March 24, 1910 to June 12, 1914, average arrival April 10; July 12, 1909 to December 27, 1913.

MASTIC. Common transient, uncommon in winter, rare in summer, does not breed.

LONG BEACH. Regular transient; April 2, 1914 (Bicknell) to May 30, 1916 (Hix and L. N. Nichols) and June 28, 1917 (Bicknell); July 9, 1916 (Bicknell) to December 7, 1916 (Bicknell); several mid-winter records.

New York State. Now a rare transient in our area, as settled conditions have destroyed its haunts.

CENTRAL PARK. Casual visitant; three records, August 9, 1915 (Hix); May 17, 1917 (L. N. Nichols); September 1, 1917 (Hix).

BRONX REGION. Rare transient; April 8, 1917 (L. N. Nichols) to May 26, 1912 (L. N. Nichols); September 21, 1919 (L. N. Nichols) to December 28, 1912 (Hix).

New Jersey. So far as known an uncommon but regular transient throughout, but locally rare where sizable marshes or swamps are lacking. May possibly be found breeding. Extreme fall dates are July 4, 1920 to December 18, 1921 near Elizabeth (Urner). Recorded in mid-winter near Plainfield (Miller).

ENGLEWOOD REGION. Uncommon transient; July 16, March 29, 1914 (J. T. Nichols) to May 12, 1912 (Griscom); July 16, 1921 (Bernard Fread) to November 13, 1914 (J. T. Nichols).

AMERICAN EGRET (*Herodias egretta*)

In Giraud's day the Egret was regarded as an occasional summer visitor to Long Island, and bred in southern New Jersey. Plume hunters in the next sixty years reduced it to the verge of extinction, and it became a rare bird everywhere, while on Long Island it was definitely recorded only seven times between 1880 and 1900. However, adequate protection was afforded it in time in the South, and since 1915 it has showed a marked increase in this region, and probably occurs every summer on the south shore of Long Island. Away from the coast it is a very rare or casual visitor. Its pure white plumage and its size make it one of the most beautiful and conspicuous of our birds.

Long Island. Rare summer visitant, probably occurring every year; about July 1 to October 1.

ORIENT. Rare summer visitant; July 13, 1920 to August 20, 1906.

MASTIC. Rare summer visitant.

LONG BEACH. August 14, 1921 (Friedmann) and reported several days later by a coast guard.

New York State. One record near Ossining years ago (Fisher); Mr. Brandreth knows of two recent occurrences, the last in September 1921, and has heard reports of five others having been seen.

BRONX REGION. Three birds appeared July 16, 1916, in a small swamp just south of the Van Cortlandt Park Subway station, and were discovered by Mr. S. H. Chubb. They became entirely accustomed to the crowds and the roar of the

traffic, and were successfully photographed with kodaks by several people. One remained until October 9. The next year a single bird reappeared, and was present July 19 to August 5 (S. H. Chubb).

New Jersey. Rare or casual summer visitor. Stone in the Birds of New Jersey (1909) gives only one record for our area, near Ridgewood, July 1902. Other records are Sussex, August 7, 1911 (Kuser) and Bernardsville, August 5, 1915 (Kuser). C. C. Owen reports two shot at Maplewood, July 27, 1897. This record is given under the Little Blue Heron by Dr. Stone without explanation. One record near Raritan (Miller). Least rare on the marshes of Newark Bay; flock of 20 summer of 1907; August 4, 1917; July 31 to September 18, 1921 (Urner). Two seen near Branchville, Sussex County, August 4, 1918 (G. Clyde Fisher, Auk, 1919, p. 101).

LOUISIANA HERON (*Hydranassa tricolor ruficollis*)

This southern species has occurred accidentally on one occasion on Long Island, a single specimen shot near Patchogue in the summer of 1836, as reported by Giraud.

LITTLE BLUE HERON (*Florida cærulea*)

Like the Egret, the Little Blue Heron is a rare summer visitant, perhaps a little commoner than its large relative on the coast, but equally rare inland. Strangely enough it occurs also very rarely in spring on Long Island, for which there is no ready explanation at hand. Adults in the blue plumage are much scarcer than white birds.

There is an unnecessary amount of confusion in identifying these Herons. Observers seem inclined to magnify Little Blue Herons into Egrets, and also occasionally confuse the adult Little Blue and the Green Heron. Again small white Herons are assumed to be Snowy Egrets, a species long since extirpated in the northeastern states, and I have accepted no sight records of it. A white Little Blue Heron has greenish-yellow legs and feet, the Snowy Egret has black legs and yellow feet, and it requires *very close range* to determine this accurately. Any small white Heron may safely be called a

Little Blue. It should be remembered that an Egret is about as big as a Great Blue Heron in life, and appears about twice the size of a Little Blue. The Little Blue Heron appears slightly smaller in life than the Night Heron, but almost twice as big as a Green Heron.

Long Island. Rare summer visitant, July 3 to September 5, 1922 Montauk (Griscom and LaDow); very rare in spring; six records, April 3 to May 6.

ORIENT. Rare summer visitant, July 3, 1920 to August 30, 1916.

MASTIC. Uncommon summer visitant. July 15, 1917 to September; very rare in spring, May 6, 1916 (J. T. Nichols and Griscom).

LONG BEACH. The coast guard men report having seen "small White Herons" on several occasions (Bicknell).

New York State. Very rare or casual summer visitant, only one record, July 19, 1914, Staten Island (H. H. Cleaves).

New Jersey. Rare or casual summer visitant. Reported at Lake Hopatcong, July 18, 1914 (R. F. Haulenbeck). Three records near Plainfield, the last a flock of 24, August 20, 1922 (Miller). Three birds near Elizabeth, August 29 to September 12, 1920; three more in the same place July 31, 1921; another on the salt marshes of Newark Bay, August 5, 1921 (Urner).

ENGLEWOOD REGION. A white Heron with greenish legs, reported to J. T. Nichols at Oradell by Lewis W. Robinson some years ago, is apparently this species.

GREEN HERON (*Butorides virescens*) Fig. 9

This is our commonest and most widely distributed Heron, breeding contentedly almost anywhere where there is some water, and it is equally partial to salt and fresh. Its harsh call "ke-ow" is more often heard than the bird is seen, but satisfactorily betrays its presence. Especially in August Green Herons are often heard migrating at night in extraordinary numbers. A few arrive the latter part of April, but the bulk of the breeding birds do not arrive until the first week in May, and migrants are passing throughout the month. The Green Heron starts moving south early in August, and only stragglers remain after September 15.



Photograph by A. A. Allen

Fig. 9. Green Heron.

Long Island. Common summer resident. April 7 to October 13, casually to November 1. Rare before April 20.

ORIENT. Common summer resident, April 22, 1917 to November 1, 1908. Average, April 28 to October 5.

MASTIC. Common summer resident.

LONG BEACH. Present throughout the summer, as it breeds nearby; April 7, 1917 (Janvrin) to October 12, 1917 (Bicknell); rarely seen in April..

New York State. Still to be found nesting in the less settled portions of the area, regular on migration throughout.

CENTRAL PARK. A regular but uncommon transient, seen every spring and fall. April 25, 1921 (Granger) to May 29, 1909 (Griscom); August 11, 1913 (Griscom) to September 26, 1921 (Griscom).

BRONX REGION. Now a local summer resident, regular in migration. April 18, 1917 (L. N. Nichols) to October 12, 1911 (Wiegmann and Rogers).

New Jersey. Common summer resident throughout. Noted April 9, 1922 and October 12, 1917 in the Newark Marshes (Urner).

ENGLEWOOD REGION. Common summer resident, April 13, 1913 (Griscom and N. F. Lenssen) to September 24, 1887 (Chapman).

BLACK-CROWNED NIGHT HERON (*Nycticorax nycticorax naevius*)

This species is common on Long Island and in all the coastal marshes, but inland occurs only as an uncommon migrant or local summer resident. Its usual habit is to nest in large rookeries. Such are unknown in our area at the present time, and it is probable that the birds now breed at least in smaller aggregations as a matter of safety. The harsh "*quawk*" of the Night Heron is often heard from the sky at night, and cannot be mistaken for the note of any other bird. Immature birds are sometimes mistaken for Bitterns.

Long Island. Common summer resident, rare in winter. No large rookeries now known. In fact the nesting of the Night Heron is something of a mystery. The few small nesting colonies located do not account for the multitudes in every marsh on the island. (March 16) April 6 to October 20 (December 1).

ORIENT. Common summer resident, occasionally winters. March 16, 1902 to November 21, 1920. Average April 6 to October 25.

MASTIC. Common summer resident.

LONG BEACH. Common in the marshes all summer; April 28, 1921 (Bicknell) to October 30, 1921 (Janvrin and Johnston).

New York State. No definite breeding colony known, but found all summer in the coastal marshes.

CENTRAL PARK. Regular transient, April 16, 1917 (Janvrin) to June 2, 1913 (Hix); August 4, 1908 (Griscom) to October 17, 1904 (Hix). One old December record many years ago (Woodruff and Paine); occasionally found roosting in the Park during the summer.

BRONX REGION. Now a common permanent resident. In recent years increasing numbers of these birds have wintered around the lake in the Zoological Garden. No definite breeding colony known, but found throughout the summer in the marshes along the Sound.

New Jersey. Common near the coast, decreasing inland, and rare or unknown in the hill country of the northern and western counties. I do not know whether the old rookeries near Morristown and Summit still exist. A colony of 50 pairs located in 1922 near Boonton (Carter). Another rookery near Picton (Miller). Earliest arrival March 22, 1922 in the Newark Marshes (Urner).

ENGLEWOOD REGION. Uncommon transient visitant, and recorded in summer. April 5, 1914 (Bowdish) to November 8, 1914 (Rogers); also December 3, 1915 (R. S. Lemmon). No definite breeding colony known.

YELLOW-CROWNED NIGHT HERON (*Nyctanassa violacea*)

A casual visitant from the South. Eaton cites four specimens taken on Long Island, chiefly in April. There are two additional sight records of adult birds, which are unmistakable in life; another specimen, previously unrecorded, was shot July 7, 1902 at Coney Island by A. Finck and presented to this Museum; there is also a specimen in the Dwight collection, shot on Shelter Island July 31, 1903 by W. W. Worthington.

ORIENT REGION. Three records. Specimen taken in the fall about 1892; one observed May 4 to 7, 1905, and another April 9, 1912.

Mr. Chas. A. Urner obtained most satisfactory studies of an immature bird on the Newark Marshes, August 16 and September 3, 1922. It was with the common Night Heron on both occasions. His report on the first occasion was immediately recognizable, and specimens in the Museum were thoroughly studied and compared. The observation of September 3 was, therefore, as conclusive as possible.

KING RAIL (*Rallus elegans*)

The exact status in this territory of the largest and most brightly colored of our Rails is still a matter of speculation. It is apparently excessively shy and secretive, and is unquestionably more numerous than the few records would indicate.

Long Island. Perhaps a rare summer resident, but there is no definite breeding record. Also occasional in winter. Dutcher records four specimens. Of these two were taken in summer, one on November 2, 1886, and the fourth struck Montauk Point Light on the remarkable date of March 3, 1887. Braislin (1907) was only able to add that he had heard of several instances where large and brightly colored Rails had been secured in autumnal rail-bird "shoots," but impossible of absolute identification. Only four other records have come to light since. On May 31, 1922, however, Mr. F. M. Schott found the nest and nine eggs of a large Rail in a fresh water cat-tail marsh near Astoria. Most unfortunately no bird was seen. I have examined these eggs, and while I could not identify them positively, the habitat is highly unlikely for a Clapper Rail.

ORIENT. Known only as a rare winter visitant; December 8, 1904; December 28, 1919; January 22, 1919 (See Auk, 1920, p. 306).

MASTIC. One record, May 12, 1918.

Unknown elsewhere in New York State in our area.

New Jersey. Practically unknown in our area. A nest reported found in 1895 on the Passaic River below Summit (H. H. Hann), but the data given are unsatisfactory. Reported from the marshes of Newark Bay near Elizabethport, May 21, 1921 (Urner). A nest and nine eggs found in the Great Swamp about 1900 (La-Rue K. Holmes).

ENGLEWOOD REGION. One record, a male caught in a muskrat trap December 14, 1919 (Weber) in the Overpeck

Marshes. Local gunners call the King Rail regular in the fall, but the bird they mean is the Florida Gallinule. (Weber)

CLAPPER RAIL (*Rallus crepitans*)

A common summer resident in our salt marshes, often heard but seldom seen. It is the noisiest of our Rails, calling throughout the day as well as at night, and one bird will often start a whole colony going. A few birds arrive early in April, but the bulk of the summer resident population does not arrive until the last of the month.

Long Island. A common summer resident on the western end of the island, but rare east of Shinnecock. April 3 to December 5; occasional in winter.

ORIENT. One breeding record; otherwise a rare, irregular visitant, occurring at any time of year.

MASTIC. No record.

LONG BEACH. Common summer resident. Reported by the life-saving crew as heard calling March 21, 1919; otherwise not recorded until mid-April; noted November 2, 1915 (L. N. Nichols); one winter record, two birds January 28, 1912, one captured alive (Cleaves and Griscom).

New York State. Probably still to be found on Staten Island, but most of the salt marsh now destroyed. Unrecorded from the salt marshes of the Sound in our area. Accidental at Ossining (Fisher).

New Jersey. Rare and decreasing on the salt meadows of Newark Bay (Urner).

ENGLEWOOD REGION. Accidental on the Overpeck Marshes September 1, 1913, specimen examined in the flesh by Dr. G. Clyde Fisher.

VIRGINIA RAIL (*Rallus virginianus*)

This is easily our commonest Rail and is found throughout the region in suitable habitats. While its presence is most readily detected by its notes, a pig-like grunting in a descending scale, and a curious *cút, cútta-cútta-cútta*, it is more easily observed and flushed than any other species. It arrives from the south about the third week in April and is rarely seen after October.

Long Island. Fairly common summer resident, rare in winter. April 10 to October 30.

ORIENT. Not common summer resident; March 27, 1920 to November 28, 1908. Frequently observed in winter.

MASTIC. Fairly common summer resident.

LONG BEACH. Rare transient; April 28, 1921; May 6, 1921; August 11, 1921 to September 22, 1921 (all by Bicknell).

New York State. Still breeds where its habitats have not been destroyed.

BRONX REGION. Now a rare and local summer resident. Formerly nested in the marshes around Dyckman Street (Weber) and at West Farms up to 1910 (Griscom). These localities now totally destroyed. Still breeds in the swamp at Van Cortlandt Park, arrival April 26, 1921 (R. Friedmann).

New Jersey. A summer resident throughout, where suitable habitats prevail. More generally distributed and locally less numerous northward and westward. The latest date before me is October 23, 1921 on the Newark meadows (Urner).

ENGLEWOOD REGION. Common summer resident in the Overpeck Marshes. April 17, 1921 (Griscom and Johnson) to October 15, 1922 (Hix).

SORA (*Porzana carolina*) Fig. 10

The status of the Sora in our territory still awaits satisfactory determination. Until quite recently it nested in some of the marshes near New York City, but these are now destroyed. It is best known as a fall migrant in the larger marshes where wild rice grows, but is rare or undetected in spring. It should be found nesting in the marshes of northern New Jersey. The Overpeck Marshes are an excellent locality for this species in August and September, if the student is willing to splash around in the muck and reeds. When flushed, it closely resembles a Virginia Rail in size and color, but lacks the rufous wing-coverts, and has a short, straight bill instead of a long, curved one. In spring or early summer the calls betray a breeding colony, a clear whistled *ker-wee*, and a high-pitched *whinny*, suggesting a Semipalmated Sandpiper.

Long Island. Common transient, at least in the fall, formerly breeding locally, and perhaps still doing so; rare in winter. April 28 to May; August to October 24.

ORIENT. Rare fall transient. September 20, 1904 to September 30, 1914.

MASTIC. Uncommon fall transient.

LONG BEACH. Casual; September 1 and 29, 1921 (Bicknell) and October 12, 1921 (Griscom, Johnson, and Johnston).

New York State. Now extirpated as a summer resident, and very rare as a migrant, its haunts almost totally destroyed. Perhaps still to be found on Staten Island in the fall. Noted there April 27, 1907 (Chapin).



Photograph by A. A. Allen

Fig. 10. Sora.

BRONX REGION. Extirpated as a summer resident; only one recent record, August 15, 1917 (Chubb).

New Jersey. An abundant transient in fall in the wild rice marshes, and perhaps breeding locally. Noted May 30, 1912 in the marshes south of Carlstadt (Griscom). Seen in summer at Singac, near Paterson (Miller). Breeds in the marshes of the Paulin Kill, near Newton, Sussex Co. (Hix, Rogers), and should be found in other favorable places in that part of the State.

ENGLEWOOD REGION. Abundant fall transient, July 31, 1887 (Chapman) to October 31, 1909 (Griscom and LaDow); a Rail flushed December 18, 1920 was probably but not positively this species (Weber).

YELLOW RAIL (*Coturnicops noveboracensis*)

This Rail is easily recognized in life by its small size, general yellowish appearance, and the white wing-patches. It is so secretive and so hard to flush, that the observer who has seen it in life may well consider himself fortunate. There can be no question that it is overlooked, but all suppositions that it nests anywhere in our area are absolutely unsupported by facts, and are contrary to the bird's known breeding range. It prefers grassy rather than cat-tail marshes, and is more frequent in fall than in spring.

Long Island. Uncommon fall transient, August 30 to November 11; one winter record, January 17, 1894; apparently rare in spring, only two records; March 31, 1921, one found dead in a yard in Brooklyn and brought to the Brooklyn Museum; and April 29, 1887.

ORIENT. One record, September 26, 1909.

LONG BEACH. One flushed August 30, 1921 (Bicknell).

Unknown otherwise in New York State in our area.

New Jersey. Recorded by Thurber (1887) as very rare at Morristown on the authority of a Mr. Fairfield. One record at Hackensack, September 30, 1893 (George Richards). The only recent records for northern New Jersey are on the Overpeck Marshes.

ENGLEWOOD REGION. Noted four times in 1920 between October 4 and November 25; specimen taken October 11 (Weber).

LITTLE BLACK RAIL (*Creciscus jamaicensis*) Fig. 11

One of the least known of North American birds, and harder to observe and study than a field mouse. It seems to prefer grassy meadows. On the few occasions in life I have seen it on the wing, it looked about the size of a Song Sparrow, or half the size of a Sora, which it resembles in shape and general color. In our area it is known definitely only from Long Island.

Long Island. Seven records; Jamaica, spring of 1879; Canarsie, spring 1884; South Oyster Bay, August 1, 1884. Specimens taken in all three cases. Flushed in a grassy marsh on Jones



Mounted Specimen in The American Museum of Natural History

Fig. 11. Little Black Rail.

Beach, May 24, 1914 (Griscom, LaDow, and Johnson, see Auk, 1915, p. 227); another flushed in practically the same place on Jones Beach, May 23, 1920 (Griscom and Janvrin); one flushed in a grassy meadow at Mastic, May 31, 1920 (J. T. Nichols). Two other individuals flushed, one of them twice, on the same stretch of meadows on Jones Beach, May 28, 1922 (Crosby, Griscom, Janvrin, Johnson). These dates are strong presumptive evidence that the bird nests on Long Island where it has been seen. The favored Jones Beach locality is a stretch of grassy meadow, which is comparatively dry, and bordered by a growth of bushy swamp and patches of *Phragmites*. Every time parties have spread out over this meadow and swept down it from end to end, one or more Rails have been flushed. They always fly to the reed-beds, which are often a hundred yards from where they are flushed, and where they completely disappear. I believe the bird probably nests in this thick growth and feeds out in the meadows. All efforts to flush it in the thicker growth have been useless, and the old "dodges" of dragging with a rope or using a rake are here impossible.

CORN CRAKE (*Crex crex*)

An accidental visitant from Europe, which has occurred three times on Long Island, once in August and twice in November.

PURPLE GALLINULE (*Ionornis martinicus*)

Now an accidental wanderer from the South. Eighty years ago Giraud regarded this species as extremely rare, but Colonel Pike considered it plentiful. There are only two specimens in existence from Long Island, the last taken in 1879.

FLORIDA GALLINULE (*Gallinula galeata*)

The Gallinule in this territory is an exceedingly local summer resident, requiring just the right habitat. It wants, apparently, a cat-tail swamp, where the water is particularly deep, and where the dense beds of vegetation give way here and there to ponds or open spaces of water. It is unknown or

else a rare migrant in any other type of marsh. Unfortunately the suitable marshes are almost entirely in the immediate vicinity of New York City, and are constantly being drained or filled in to "improve" the neighborhood by providing another slum district on the outskirts of the metropolis. Flushing a Gallinule is very wet and muddy work indeed, but where they are known to breed, patient watching of some open space of water is at length rewarded by a glimpse of one or more birds swimming along the border with bobbing head and cocked-up tail. At such times they can be told from Coot by the bright red frontal shield and yellow-tipped bill, which are whitish in the latter. It is practically impossible to distinguish immature birds in life except under favorable circumstances. Gallinules are much browner.

Long Island. Uncommon transient. Bred formerly in the marshes of Long Island in several places; these localities now destroyed. At the present time no definite breeding colony known. Our earliest date in spring, May 20, does not represent the arrival of the species accurately. Latest fall date October 28. October is the likeliest month for migrants.

ORIENT. Unknown.

MASTIC. Unknown.

LONG BEACH. Unknown.

New York State. Rare summer resident formerly at Ossining (Fisher); unknown now. Only one recent record.

BRONX REGION. One record, October 7, 1905 (Wiegmann and Hix) in a large swamp at West Farms, now long since destroyed. No suitable habitat is believed to exist in this area at the present time.

New Jersey. A colony discovered in 1906 in the Newark Marshes by Messrs. Abbott, Callender, and Hann. The only definite arrival date for this colony is April 16, 1910 (Griscom and LaDow). This section of the marshes is now destroyed. In July, 1920 Mr. Charles H. Rogers discovered young Gallinules in suitable marshes east of Kingsland, and in June 1922, adults and nestlings were seen several times along the Erie R. R. just west of New Durham (Griscom). There is every reason to hope that Gallinules may be found nesting in other sections of the Hackensack Marshes,

many of which are still unspoiled and unexplored. Thurber (1887) calls the Gallinule a rare summer visitor at Morristown, but gives no data, and there are no specimens in his collection. Formerly common in summer in the marshes near Elizabethport, last nesting in 1916 (Urner).

ENGLEWOOD REGION. Apparently a rare but regular fall transient, and called King Rail by local gunners. Two birds collected August 31, 1917 may have bred (Weber), but the type of marsh is not suitable. Migrating dates are September 17, 1921, and about October 15, 1910, birds shot in both cases.

AMERICAN COOT (*Fulica americana*)

The Coot is best known in our area as a common transient on the bays and ponds of eastern Long Island. It also occurs regularly on the Hackensack Marshes in New Jersey. Elsewhere it is now rare or casual. One of the surprises of local ornithology was the discovery of a breeding colony in the Newark Marshes, as the bird does not nest in New England, and is rare and local in western New York. It is decidedly rare in spring, most likely to be noted about the middle of April. In the fall it is most numerous in October and November.

Long Island. A transient, rare in spring, common in fall. Occurs chiefly on the larger bays of the South Shore and the ponds at the eastern end. Rare or casual elsewhere. Three winter records (Mastic and Montauk). Noted June 28 at Long Island City years ago, and may well have bred there with the Gallinules, but definite evidence lacking. Single birds have been noted on two other occasions in summer, August 15 at Moriches (Braislin) and July 4, 1919 at Mastic (J. T. Nichols and R. C. Murphy). These occurrences are probably casual, and are not satisfactory evidence of breeding, as the localities are unsuitable. March 23 to May 4; September 15 to December 26.

ORIENT. A common transient on Gardiner's Island (Griscom), rare at Orient (Latham). April 5, 1912, Gardiner's Island (Griscom and Harper); October 20, 1906, Orient (Harry G. Latham) to December 3, 1911, Gardiner's Island (Griscom, LaDow, and Miller).

MASTIC. Transient visitant, rare in spring, common in fall; casual in summer; two winter records. May 4, 1919;

September 15, 1918 to December 26, 1921 a flock; February 12, 1916 a single bird; July 4, 1919.

LONG BEACH. Casual migrant, April 21, 1912 (Griscom).

New York State. Regarded as a common transient at Ossining years ago (Fisher); now very rare in our area.

CENTRAL PARK. Casual many years ago. No records under modern conditions.

BRONX REGION. Now a very rare or casual migrant, the favorable habitats destroyed or ruined. October 7, 1905 (Wiegmann and Hix) to November 11, 1916 (Hix).

New Jersey. Thurber (1887) recorded the Coot as a rare breeder at Morristown, but gave no data. Found nesting with Gallinules in the Newark Marshes, May 30, 1907 by C. G. Abbott. Seen there as early as April 16, 1910 (Griscom and LaDow). As already noted in several places, this locality is now destroyed. This ends our knowledge of the Coot as a breeding bird in northern New Jersey. In various parts of the Hackensack Marshes it is a regular fall transient, but rare or unknown in spring. Seen April 19, 1914 in the marshes east of Kingsland (Griscom). A rare transient at Montclair (Howland). We have no knowledge of its occurrence farther north and west, but it should be looked for on the larger lakes and marshes in the fall.

ENGLEWOOD REGION. Fairly common in October on Overpeck Creek, unknown in spring. September 25, 1921 (Griscom and Johnson) to November 4, 1916 (Weber).

RED PHALAROPE (*Phalaropus fulicarius*)

Phalaropes are Shore-birds that are able to swim, and during their migrations are among the most pelagic of our birds, occurring sometimes in great flocks one hundred or more miles from land. Near the coast, however, they are rare or uncommon, and their presence is usually due to storms. The Red Phalarope is either more pelagic than the Northern, or else it is less numerous, as there are a scant twenty records of its occurrence on Long Island. In spring plumage the two species are unmistakable, but in the fall they closely resemble each other, and can only be distinguished at close range by the different proportions of the bill, relatively stout and thick at the base in the Red, excessively slender and needle-like in the Northern.



Painting by Courtenay Brandreth

Fig. 12. Northern Phalarope.

Long Island. Rare or uncommon transient, April 30 to June 5; August to November 28. An exceedingly early specimen, previously unrecorded, taken March 25, 1913 at Shelter Island by W. W. Worthington, now in the Dwight Collection.

MASTIC. One record.

LONG BEACH. One shot in November 1890 (N. T. Lawrence); an adult female in full plumage on June 3, 1922 was watched "for 20 minutes at from 20 to 50 feet . . . the bird had been wounded and was unable to stand, alternately flying and coming to rest on its breast" (Charles Johnston).

New York State. Casual at Ossining, October 14, 1919, specimen taken by Courtenay Brandreth, and presented to the American Museum.

New Jersey. Casual; one shot on the Hackensack River, June 27, 1863 by C. C. Abbott.

NORTHERN PHALAROPE (*Lobipes lobatus*) Fig. 12

This species occurs on the coast much more frequently than the Red Phalarope. When such a bird is found, it is usually riding lightly on the water, instead of standing on the shore with other Sandpipers. Compared with species of its own size, it is much slenderer in build, with a longer neck and slenderer bill than any Sandpiper. It is usually exceedingly tame.

Long Island. Fairly common transient; (April 2) April 27 to June 3; August 5 to October 22.

ORIENT. One record, September 27, 1908.

MASTIC. Fairly common transient.

LONG BEACH. One record, September 4, 1921 (Friedmann).

New York State. Shot once, seen about six times in the last fifteen years near Ossining (Brandreth).

BRONX REGION. Casual; one record, August 26, 1911, on the flats near Watson's Woods at West Farms (Hix), a locality since destroyed.

WILSON'S PHALAROPE (*Steganopus tricolor*)

This species of the western plains has occurred too often on Long Island to be regarded as accidental, but is certainly one of our rarest and most irregular fall transients. There is

one spring record. It is thus in the same class as the Orange-crowned Warbler and the Philadelphia Vireo. It was known to Giraud as a rare bird in 1844. Fortunately it is not particularly difficult to distinguish this species from a Northern Phalarope. It lacks the conspicuous white stripe in the wing of that species, and is almost uniform fuscous-brown above, while the Northern Phalarope is distinctly variegated or streaked with blackish and whitish. Wilson's is also slightly larger.

Long Island. Very rare and irregular fall transient, 9 records, August 15 to October 15; casual in spring, June 1, 1887.

MASTIC. Twice, September 21, 1918 and August 23, 1920, single birds flocking with Lesser Yellowlegs.

A very tame bird seen by Newbold T. Lawrence swimming in the East River at the foot of Pine Street October 15, 1879.

AVOCET (*Recurvirostra americana*)

A century ago this striking Shore-bird bred on the coast of New Jersey and was an occasional visitor to the shores of Long Island according to Giraud. Two specimens are in existence, the last taken in 1847. Dr. Stone records a few specimens in New Jersey up to 1908, but Eaton very properly regarded the Avocet as extinct in New York State. It is therefore with great pleasure that I can record a specimen which Mr. Roy Latham discovered August 15, 1908 at Orient, and which remained for a week.

WOODCOCK (*Philohela minor*)

The Woodcock is still a fairly common summer resident in the unsettled portions of the region, but is steadily decreasing. As a migrant it still occurs in places where it has ceased to breed. Flights still occur in the fall, but the great numbers of former days are a thing of the past. It should be looked for in low wooded areas, where soft mud affords it a good feeding ground, and where countless borings are an evidence of its presence. Sharp-eyed indeed is he who sees a Woodcock on

the ground. Ordinarily we get a glimpse of a dim brown shape with a long bill, a large head, a stocky build, and broader wings than any other Shore-bird. It is one of the first species to arrive in spring, and starts mating and nesting almost immediately. The harsh *peent* of the aërial performance, heard at dusk, is responsible for the early Nighthawk records!

Long Island. Fairly common summer resident, occasional in winter; February 22 to December 8.

ORIENT. Rare and local summer resident, more frequent during migration; recorded in winter. April 1, 1914 to December 7, 1919.

MASTIC. Fairly common summer resident.

LONG BEACH. Casual during migration; October 30, 1919 (Crosby); October 30, 1921 (Bicknell and Johnston); March 3, 1921 (Bicknell).

New York State. Still nesting locally on Staten Island and in northern Westchester County. Bewildered birds sometimes fly into shop windows in New York City. One found dead at the base of the Museum building, December 14, 1921.

CENTRAL PARK. Casual visitor, less rare fifty years ago; April 1, 1894 (Chubb); December 27, 1909 (Rogers); November 6, 1917 (Hix).

BRONX REGION. Formerly a common summer resident. Still nesting near East Chester and Saw Mill Lane (L. N. Nichols). Rare transient elsewhere; April 15, 1916 (L. N. Nichols); October 8, 1911 to October 31, 1908 at Van Cortlandt Park (Griscom).

New Jersey. Fairly common summer resident throughout, except near the Hudson River, where rare or extirpated.

ENGLEWOOD REGION. Now a rare summer resident and uncommon transient, decreasing steadily. Probably still breeds in northern Bergen County, but not found in summer near Englewood since 1914 (Griscom). February 14, 1915 (N. F. Lenssen) to December 31 (R. S. Lemmon). Average arrival March 15 to 20; rare after November 15.

WILSON'S SNIPE (*Gallinago delicata*)

The Snipe is a common transient in our fresh-water marshes, occurring regularly in our most inland areas. It is

entirely indifferent to brackish water, but is less frequently seen in pure salt marsh. It sometimes puts down in swamps, and I have even flushed it from bayberry thickets on a dry hillside. It flies away with a peculiarly erratic, zig-zag flight, uttering a harsh "*scape*," and the long bill and boldly striped appearance above render it unmistakable. Crippled birds are reported to have nested many years ago near Chatham, N. J. (Herrick), and a nest was more recently found near Newfoundland, N. J., by A. Radclyffe Dugmore, which is probably a genuine breeding record. Careful search may show that the Snipe breeds in locally favorable places in northwestern New Jersey. As a migrant the species is rare before April 1 and after May 1. In the fall it normally arrives with frosty weather in early September and lingers until its haunts are frozen, so that it is occasional in winter, especially on Long Island.

Long Island. Common transient; occasional in winter. March 12 to May 23; (July 10) August 6 to December 5; most numerous in October.

ORIENT. Usually rare, sometimes common transient, frequently seen in winter; March 12, 1904 to May 23, 1914; August 15, 1919 to December 5, 1918.

MASTIC. Fairly common transient, once in winter; noted as late as May 11, 1918; also July 17, 1920 and July 10, 1921.

LONG BEACH. Casual during migration; three fall records, September 22, 1921 to December 1, 1921 (Bicknell); four spring records, April 5, 1917 to April 21, 1921 (Bicknell).

New York State. Still a fairly common transient wherever suitable marshes exist. Recorded as early as March 21, 1915 on Staten Island (Cleaves).

BRONX REGION. Now a very rare transient, formerly common; October 8, 1911 (Griscom and LaDow) to October 31, 1910 (Hix); March 30, 1919 (Clarke L. Lewis); one winter record at Riverdale, February 24, 1880 (E. P. Bicknell).

New Jersey. Still a fairly common transient throughout in favorable country. For breeding data, see above. Earliest fall arrival August 19, 1921 on the Newark Marshes (Urner).

ENGLEWOOD REGION. Common transient; March 17, 1904 (R. S. Lemmon) to May 17, 1914 (Griscom, Johnson,

and LaDow); September 23, 1909 (Griscom) to December 5, 1921 (Laidlaw Williams).

DOWITCHER (*Macrorhamphus griseus griseus*)

Many years ago the Dowitcher was an abundant transient, occurring on the extensive mud-flats of the south shore of Long Island in dense flocks. Its excessive tameness insured its slaughter in large numbers, resulting in a marked decrease. Fifteen years ago it was a fairly common transient in favorable localities, but was very rare near New York City. The abolition of spring shooting was a great benefit to this, as well as our other rarer Shore-birds, and at the present writing the Dowitcher occurs regularly in late May at Long Beach and Jones Beach. There is no difficulty in identifying it even in the fall when the pinkish-brown underparts have changed to whitish. The very long bill, short legs, dark upper parts, and silvery lower back, rump and tail, are all conspicuous field-marks, and its excessive tameness practically insures a sufficiently close approach to see these characters with the naked eye.

Near New York City the Dowitcher is now a certainty in the last week in May. It is one of our earliest fall migrants, and at that season is most often seen in July or the first half of August. There are no inland records.

Long Island. Fairly common transient, April 19 to June 12; June 29, July 1 to September 29. Rare where extensive mud-flats are lacking.

ORIENT. Rare fall transient; July 15, 1908 to September 15, 1919.

MASTIC. Fairly common transient.

LONG BEACH. May 6, 1921 and May 14, 1914 to June 23, 1921 (Bicknell); June 29, 1922 and July 1, 1920 to September 1, 1921 and October 1, 1918 (Bicknell).

New Jersey. Recorded only from Newark Bay, a single bird May 31, 1920, and four on August 13, 1921 (Urner).

LONG-BILLED DOWITCHER (*Macrorhamphus griseus scolopaceus*)

This western subspecies of the last is apparently a rare fall transient on the coast of Long Island. It was well known to the early ornithologists, and apparently occurred in spring years ago. There are numerous records. It is practically impossible to identify this bird in life. Only size differences hold in the fall, and there is considerable sexual difference in the length of the bill. Thus males of this subspecies have shorter bills than females of the eastern bird.

Long Island. Rare fall transient, formerly in spring, March 20, 1866; July 16 to November 2 (November 30).

MASTIC. One record, September 28, 1919.

STILT SANDPIPER (*Micropalama himantopus*)

This species was formerly considered a rare bird, due perhaps to its close superficial resemblance to the Summer Yellowlegs, with which it usually associates. It is now known as an irregular fall transient, sometimes absent, often fairly common, and occasionally occurring in marked flights. The Stilt Sandpiper is a smaller-bodied bird than the Lesser Yellowlegs, with even longer legs, which are distinctly *greenish-yellow*. Its ordinary call-note is "recognizably lower pitched and hoarser" (J. T. Nichols).

Long Island. Fairly common fall transient, occasionally more numerous, July 10 to October 10; very rare in the spring, one record, May 18, 1885.

MASTIC. Uncommon fall transient, sometimes numerous. Noted as early as July 10, 1921.

LONG BEACH. No record.

The only record away from the coast is a single bird excellently seen at close range with Lesser Yellowlegs, September 19, 1909 on the tidal flats near Watson's Woods, West Farms, in the Bronx Region (Griscom and LaDow).

KNOT OR ROBIN SNIPE (*Tringa canutus*)

Now an uncommon transient on Long Island, formerly abundant, but almost confined to the low coast of the South

Shore. Elsewhere very rare or unknown. The Robin Snipe has benefitted by the absence of spring shooting in recent years, and can now be seen every spring at Long Beach. It is the last spring transient to arrive, almost never recorded before May 25. The large size, relatively short bill, uniform light gray upper parts, and still lighter tail make the identification of even immature birds a simple matter.

Long Island. Uncommon transient; (April 29) May 15 to June 10 (June 27); July 15 to October 30.

ORIENT. Very rare, irregular fall transient; August 10, 1904 to September 30, 1906.

MASTIC. Uncommon transient.

LONG BEACH. In the last five years, regular in late May and increasing in numbers; rarely seen before May 25. Only four records in the fall; April 29, 1920 (Bicknell) to June 27, 1920 (Bicknell); August 14, 1921 (Friedmann) to October 14, 1917 (Janvrin); an exceedingly early bird noted July 6, 1922 (Bicknell).

Only three records away from the coast; an adult observed at close range with other Shore-birds May 30, 1909 on the flats near Watson's Woods, West Farms, in the Bronx Region (Griscom); a single bird in Newark Bay June 11, 1921, and a flock of ten August 4, 1921 (Urner).

PURPLE SANDPIPER (*Arquatella maritima*)

Our only winter Shore-bird prefers a rocky coast, and is an irregular visitant at the eastern extremity of Long Island. On the sandy beaches of the South Shore it is a very rare winter visitant, and is casual elsewhere. Its dark gray upper-parts, squat figure, and short orange legs, are distinctive.

Long Island. Irregular and uncommon winter visitant, October 31 to March 25 and casually to May 4.

ORIENT. Irregularly common winter visitant, November 1, 1902 to February 28, 1904.

LONG BEACH. Very rare visitant in late fall; November 2, 1915 (L. N. Nichols); December 23, 1917 (Janvrin); November 20, 1921 (Hix); casual May 4, 1922 (E. P. Bicknell); a single bird in each case.

The only other records near New York City in recent years are Manhattan Beach, three birds on the breakwater November 9, 1912 (W. H. Wiegmann), and casually on Staten Island, specimen taken November 3, 1908 (J. P. Chapin).

PECTORAL SANDPIPER (*Pisobia maculata*)

This species, often called the Krieker, from its characteristic call-note, is preëminently a bird of grassy marshes, and is rarely seen on mud-flats or sandbars. In plumage it is essentially a large edition of the Least Sandpiper, but a practised ear can readily distinguish the more usual call notes, which in this species suggest the Snipe and the Semipalmated Sandpiper. Near New York City the Pectoral Sandpiper seems to be a decidedly rare bird at the present time, especially in spring, and it is almost certain that "hundreds" reported in late May from the outer beaches by inexperienced observers are Least Sandpipers that "looked" large and said "*kriek-krieki*." In former years it was apparently commoner inland in our area than at the present time.

Long Island. Rare spring, common fall transient; March 22 to May 30; July 6 to November 10.

ORIENT. Rare transient; May 15, 1910; July 7, 1917 to October 1, 1911.

MASTIC. Uncommon spring, fairly common fall transient.

LONG BEACH. Rare spring and fall transient, local conditions unsuited to its requirements; May 4, 1922 (Bicknell), May 5, 1912 (Griscom), and May 28, 1911 (Griscom and LaDow); August 2, 1917 (Bicknell) to November 7, 1911 (Griscom).

New York State. Formerly a rare fall transient at Ossining (Fisher), now unknown.

BRONX REGION. Formerly a rare visitant to the marshes near Watson's Woods at West Farms; May 26, 1906, (Hix and Wiegmann); July 26, 1913 (Griscom) to October 12, 1912 (Griscom and LaDow). No records since this locality was destroyed.

New Jersey. Reported as a rather common migrant at Morristown 40 years ago (Thurber). Now unknown except in the Hackensack and Newark Marshes; Mr. Urner reports it as rare between

April 30, 1921 and May 31, 1922, and sometimes common from July 15, 1916 to September 18, 1921.

ENGLEWOOD REGION. Very rare transient, only five records; April 6, 1910 (Griscom and LaDow) to May 3, 1913 (Griscom and LaDow); August 7, 1912 (J. T. Nichols) to October 11, 1911 (Griscom and LaDow).

WHITE-RUMPED SANDPIPER (*Pisobia fuscicollis*)

The White-rumped Sandpiper is usually found with Least and Semipalmated Sandpipers, and is probably overlooked in the multitudes of those species. It is, however, larger, perhaps a shade paler in the fall, and the upper tail-coverts are pure white. Its call note is also quite different. There seems to be considerable misapprehension about the status of this species in spring, as neither Braislin nor Eaton mention it as occurring at this season. The facts are, however, that it is by no means rare in spring, and can be observed annually in May on the beaches near New York City, if sufficient scrutiny be given to the abundant flocks of "Peep."

Long Island. Uncommon spring, fairly common fall transient, May 11 to June 10 (June 20); (July 4) July 20 to November 4.

ORIENT. Rare fall transient, August 4, 1912 to October 14, 1919.

MASTIC. Uncommon transient both spring and fall; noted as early as May 11, 1918.

LONG BEACH. Uncommon transient, May 15, 1919 (Bicknell) to June 20, 1918 (Bicknell); August 23, 1917 (Bicknell) to October 23, 1910 (Griscom and LaDow).

New York State. Casual at Ossining in September many years ago (Fisher).

BRONX REGION. Casual, one record, Watson's Woods, West Farms, August 26, 1911 (Hix).

New Jersey. Reported only from Newark Bay; August 12 and September 3, 1917; July 20 and August 24, 1919 (Urner).

BAIRD'S SANDPIPER (*Pisobia bairdi*)

This species is only known as a rare fall transient on Long Island, and there is one old spring record. It closely re-

sembles other species of the genus, and is doubtless overlooked, as it is exceedingly difficult to distinguish in life, and this can only be done by those who are thoroughly familiar with the *exact pattern* of coloration of the Pectoral and White-rumped Sandpipers, and who could describe all three from memory in detail. Above Baird's and the White-rumped are practically identical, but Baird's has fuscous instead of white upper tail coverts. The Pectoral is browner than either with blackish tail coverts. Below all three species have an immaculate white chin. The throat and breast of the Pectoral have a brownish cast, with distinct fine blackish streaking. In the White-rumped these parts are white with less distinct and less extensive gray streaking. In Baird's these parts are buffy with or without indistinct darker streaking.

Long Island. Rare fall transient, August 14 to October 31; one spring record, May 2, 1878.

ORIENT. Specimens have been taken between August 15, 1909 and September 17, 1909.

LONG BEACH. Specimen collected August 26, 1873 (Newbold T. Lawrence); one seen August 25, 1921 (Bicknell).

LEAST SANDPIPER (*Pisobia minutilla*)

One of our most abundant Shore-birds, and one of the few which occurs occasionally inland. This species and the Tree Swallow are our earliest fall migrants.

Long Island. Abundant transient; April 20 to May 30 (June 12); (June 22) July 1 to October 18.

ORIENT. Common transient, occasionally remaining through the summer. April 27, 1912 to June 12, 1908, average May 5 to June 5; June 27, 1910 to September 25, 1913, average July 6 to September 16.

MASTIC. Common transient, arriving from the north as early as June 22, 1921.

LONG BEACH. Common transient, April 21, 1921 (Bicknell) to June 10, 1920 (Bicknell); June 22, 1922, June 27, 1919, and July 1, 1920 (all Bicknell) to September 23, 1917 (Janvrin), October 2, 1919, October 12 and 18, 1917 (Bicknell).

New York State. Reported as a fairly common transient at Ossining, one fall record as late as October 3 (Fisher). Regular on Staten Island.

BRONX REGION. Formerly a common transient. Now rare since the Shore-bird grounds near Watson's Woods were destroyed. May 4, 1910 (Griscom) to June 1, 1909 (Griscom); July 26, 1913 (Griscom) to September 19, 1909 (Griscom).

New Jersey. Regular in the Newark Marshes, May 13, 1922 to June 4, 1921; July 11, 1920 to September 19, 1920 (Urner). Very rare transient at Montclair (Howland), and uncommon near Plainfield, recorded chiefly in spring (Miller).

ENGLEWOOD REGION. Fairly common transient; May 9, 1920 (Lester Walsh) to May 27, 1917 (Weber); no observation in the fall on Overpeck Marshes, but probably occurs regularly in July and August; noted August 7, 1912 (J. T. Nichols).

EUROPEAN DUNLIN (*Pelidna alpina alpina*)

An accidental straggler from Europe. One specimen taken on Shinnecock Bay, Long Island, September 15, 1892, and identified by Dr. F. M. Chapman.

RED-BACKED SANDPIPER; DUNLIN (*Pelidna alpina sakhalina*)

The Dunlin is much less common than formerly, and is now unknown away from the coast. As Giraud speaks of its excessive tameness, and cites an instance of fifty-two being killed at one discharge, this is quite understandable. For years the discovery of this species near New York City meant a red-letter day for the enthusiast. In the last ten years, however, it has shown a slight increase, and at the height of the Shore-bird migration in late May can be found on the Gilgo Flats on Jones Beach. For some curious reason it has always been commoner on the coast of southern New Jersey. The bird is absurdly tame, and I have kicked sand over them without arousing much interest. There is no difficulty, therefore, in making out the slightly decurved bill. It is the last of our transient Shore-birds to arrive in fall.

Long Island. Fairly common transient, rare in winter. April 1 to June 20; (August 1) August 31 to November 31.

ORIENT. Rare spring, common fall transient. May 20, 1913 to May 28, 1914; August 1, 1919 to November 7, 1916.

MASTIC. Uncommon transient.

LONG BEACH. Uncommon transient, formerly rare. April 30, 1922 (Friedmann) and May 8, 1919 (Bicknell) to June 20, 1918 (Bicknell); September 8, 1921 (Bicknell) to December 25, 1914 (Fleischer); casually as early as August 9 and 23, 1917 (Bicknell).

New York State. Formerly regarded as a fairly common fall transient at Ossining (Fisher). Now unknown. No recent records anywhere in this area.

BRONX REGION. One record, October 12, 1912 (Griscom and LaDow), on the flats near Watson's Woods, a locality since destroyed.

New Jersey. Unknown in our area, except from the Newark Bay Marshes; October 2 to October 16, 1921, and a flock of 40 on November 5, 1922 (Urner).

CURLEW SANDPIPER (*Erolia ferruginea*)

An accidental straggler from Europe. The bird was known to our early ornithologists, and Giraud states that about ten specimens had been obtained in Fulton Market, all from the "ever productive shores of Long Island." More recently a female was taken May 24, 1883 on Shinnecock Bay, and another specimen was sent to Mr. Dutcher by mail June 9, 1891, presumably from Long Island.

SEMIPALMATED SANDPIPER (*Ereunetes pusillus*)

Perhaps our most abundant transient Shore-bird. There is no prettier picture than a flock of these trustful little "Peep" trotting down the beach or scattered over a mud-flat, busily searching for food. It is frequently difficult to distinguish them from the Least Sandpiper. The latter is rustier on the back, and more streaked below in the summer plumage, but these distinctions apply also to the Western Sandpiper. The Least always has greenish-yellow instead of black legs. What I regard as the best distinguishing character between the two species, however, is the bill, which is stouter and

thicker at the base in the Semipalmated Sandpiper. The usual call notes are also readily separable, that of the Least always having a strong *ee* sound. Such characters are available only to those students who know both birds well. The less experienced are advised to use the color of the legs only.

An even more difficult proposition is to identify the Western Sandpiper. The greater average length of the bill is not a field character. There remains only color. In summer plumage the Western Sandpiper differs from the Semipalmated exactly as does the Least, but this difference is slightly more intensified. I have yet to be convinced that it is possible to distinguish these two species satisfactorily in winter plumage, and it is certain that only the merest handful of field ornithologists who have given special study to these birds, are competent to make a sight record of the Western Sandpiper, worthy of serious consideration. It is worth noting that slight as these characters appear on paper, the tameness of the birds frequently enables them to be observed. In a closely bunched flock in spring plumage, the rustier tone of a Western is quite noticeable at twenty-five feet, and should it be a female, the bill is appreciably longer.

The Semipalmated Sandpiper arrives about the end of July on Long Island, but a few birds appear earlier. By the first week in September the great majority have passed south. As with nearly all Shore-birds, the height of the spring migration is the last week in May. In our area the bird is rare or unknown in inland localities.

Long Island. Abundant transient. April 28 to June 13 (June 22); (June 27) July 4 to October 15.

ORIENT. Common transient; May 15, 1905 to June 4, 1917; July 6, 1908 to October 2, 1912.

MASTIC. Irregular in spring, abundant in fall.

LONG BEACH. Abundant transient, April 30, 1922 (Friedmann) to June 28, 1917 (Bicknell) and July 2, 1921 (Bicknell); July 5, 1917 (Bicknell) to October 18, 1917 and October 26, 1916 (Bicknell).

New York State. Reported as a common fall transient formerly at Ossining (Fisher), now occasional in August (Brandreth). Of regular occurrence on Staten Island.

BRONX REGION. Formerly a regular transient on the flats near Watson's Woods; May 10, 1912 (Griscom); July 26, 1913 (Griscom) to October 3, 1908 (Hix). Not recorded since this locality was destroyed.

New Jersey. Not recorded except near the Hudson River Valley. A regular transient on Newark Bay; May 6, 1922 to June 18, 1921; July 31, 1921 to September 10, 1921 (Urner).

ENGLEWOOD REGION. Fairly common transient, chiefly in spring apparently, but observation in the fall is too scanty. May 9, 1920 (Walsh) to May 26, 1917 (Weber); August 7, 1912 (J. T. Nichols) to September 3, 1907 (Weber).

WESTERN SANDPIPER (*Ereunetes mauri*)

For comment see under the preceding species.

Long Island. Uncommon transient, sometimes abundant in fall. It should be noted that no specimens have ever been *collected* in spring. May 12 to June 6 and 20; (July 4) July 16 to October 12.

MASTIC. May 12, 1918 and June 2, 1918 (J. T. Nichols); uncommon, sometimes plentiful, in fall; July 4, 1918 an early date.

LONG BEACH. Reported by Bicknell as satisfactorily identified on numerous occasions; April 25, 1919 to June 23, 1921; July 2, 1921 to October 17, 1918; specimen collected October 12, 1917 (Murphy and J. T. Nichols).

SANDERLING (*Calidris leucophæa*)

The Sanderling is preëminently the Shore-bird of the outer beaches, and flocks scurrying before the surf, line the whole south shore of Long Island in May and August. It is comparatively uncommon on the bays and marshes, and is casual inland. Individuals not infrequently linger into early winter.

Long Island. Common transient, a few in winter. March 15 to June 14; (July 4) July 11 to December 8.

ORIENT. Rare fall transient, August 15, 1906 to November 20, 1908.

MASTIC. Fairly common transient.

LONG BEACH. Abundant transient, occasional in early winter. April 10, 1917 (Hix) to June 18, 1921 (Janvrin). July 11, 1918 (Bicknell) to January 4, 1910 (Griscom and LaDow). Mr. Bicknell has one late January, two February, but no March records.

New York State. Regarded as a fairly common transient many years ago at Ossining (Fisher). Now unknown.

BRONX REGION. Casual on the Pelham Bay marshes May 15, 1917 (L. N. Nichols).

New Jersey. Only one record in our area, a single bird October 9, 1921 on the Newark Bay marshes (Urner). I cannot accept the old report of this species from New Brunswick by Dr. C. C. Abbott, whose records are well known to abound with obvious errors.

MARbled GODWIT (*Limosa fedoa*)

Seventy-five years ago this noble Shore-bird was a regular migrant in May, August, and September, though Giraud did not consider it abundant. In the seventies Mr. Newbold T. Lawrence mentions it as a regular migrant. By the time Mr. Dutcher was compiling his Long Island records it was a rare fall transient, and the last specimen known to him was shot in 1888. It is now a very rare straggler, and there are only five recent records. The two sight records were made by experienced field ornithologists, and deserve full credence. It is almost impossible to mis-identify this striking bird.

Long Island. Formerly a regular transient in May, August, and September. In the eighties a rare fall transient, July 20 to September 15. Now a very rare straggler from the west. Two shot on Moriches Beach, August 10, 1910 by W. S. Dana.

ORIENT. Recorded August 20, 1909 at Orient (Roy Latham).

MASTIC. A single bird excellently observed August 14, 1920 (J. T. Nichols and C. H. Rogers).

HUDSONIAN GODWIT (*Limosa haemastica*)

This species never seems to have been a common bird on Long Island, and in Giraud's time was less numerous than

the Marbled Godwit. Between 1881 and 1893 there were about twenty-five definite records, and a large flight took place in late August, 1903. Since then only a few stragglers have been recorded. Evidence from the rest of the United States and its winter quarters in Argentina and Patagonia would seem to show that it is on the verge of extinction.

Long Island. A rare fall transient, August 8 to October 9, now perhaps on the verge of extinction. Only four recent captures. Two of these, previously unrecorded, are now in the Dwight collection; August 27, 1907 at Islip (Gerald N. Williams); September 24, 1909 at Oak Island (H. C. Raven). Since this was written, Walden Pell reports a flight August 28, 1922 on Shinnecock Bay, the day after a two-day northeaster. "One Godwit lit in my decoys for some time; a single and a pair flew over also, and I observed a flock of four sitting on the Quogue Golf Course. In a different part of the bay they were reported even more commonly in flocks up to sixteen, and I saw two that were shot there, unmistakably Hudsonian Godwits." (Extract from letter to J. T. Nichols.)

MASTIC. Two specimens taken, August 21, 1915 and October 6, 1916.

GREATER YELLOWLEGS (*Totanus melanoleucus*)

In spite of the fact that it is still a game bird, the Greater Yellowlegs has managed to hold its own, and is the only one of our larger Sandpipers which is still common and generally distributed. It also occurs occasionally inland. The long yellow legs, the slender body, and the constant bobbing when at rest, are as characteristic as its loud ringing notes, which are audible when the bird is beyond the range of vision.

Long Island. Common transient, a possibility at any date in summer; (March 9) March 21 to June 22; July 3 to November 28. In spring scarce and irregular before the third week in April and after the first week in June; casual north and south bound dates meet about June 28.

ORIENT. Common transient; April 6, 1911 to June 20, 1916; average May 3 to June 6; June 30, 1916 to November 6, 1920.

MASTIC. Common transient; recorded June 25 and July 2, 1922, and Mr. Nichols believes no bird was present the few intervening days.

LONG BEACH. Common transient; March 21, 1918 (Bicknell) to June 8, 1918 (Bicknell) and casually to June 28, 1917 (Bicknell); July 15, 1920 (Bicknell) to November 21, 1919 (Bicknell), casually to December 7, 1916 (Bicknell).

New York State. Still a regular transient where its habitats have not been destroyed, but much scarcer than formerly.

CENTRAL PARK. Casual, two records; early October 1892 (F. M. Chapman); flock of nine May 9, 1915 (Hix).

BRONX REGION. Formerly a common transient, now rare but recorded annually. May 4, 1910 (Griscom) to June 1, 1909 (Griscom); August 23, 1913 (Griscom) to October 31, 1909 (Griscom, Rogers, Wiegmann).

New Jersey. A regular transient on the Newark and Hackensack Marshes, noted April 8, 1922 to June 25 and July 2, 1921; July 29, 1916 to October 30, 1921 (Urner). Occurs rarely and irregularly further inland. Its status in the northwestern sections unknown.

ENGLEWOOD REGION. Uncommon but regular transient; April 17, 1921 (Griscom and Johnson) to May 26, 1917 (Weber); September 25, 1921 (Griscom and Johnson) to October 15, 1922 (Hix). Undoubtedly arrives much earlier in the fall, but observations lacking.

LESSER YELLOWLEGS (*Totanus flavipes*)

The smaller Yellowlegs is a difficult bird to recognize, until the notes of both species are well known. The ordinary call note of this species is a "wheu" or "wheu-wheu," rarely three, while that of the Greater is normally five "wheus." Size is of value only when the two species are together. Especial care is necessary in sight identifications in spring, when this species is rare, and I have rejected several such records, where the circumstances were not entirely satisfactory. This is no reflection on the observer, who can scarcely be held responsible for circumstances. The criterion to be used is *direct comparison* of the two species. In the fall this species has a shorter migration period than the Greater,

but in favorable places is the commoner species of the two during this period. At the present time it is the scarcer species inland in our area.

Long Island. A transient, rare in spring, common in fall; (April 3) April 23 to June 1; (June 24 and 27) July 4 to October 5 (October 28).

ORIENT. Rare spring, not common fall transient; April 23, 1907 to May 23, 1905; July 12, 1912 to October 4, 1904.

MASTIC. Rare spring, common fall transient; noted June 27, 1920 and June 24, 1922 as a fall migrant, also July 4, 1920 (Murphy and Nichols).

LONG BEACH. Uncommon fall transient, July 7, 1921 (Bicknell) to September 27, 1917 (Bicknell) and October 18, 1917 (Bicknell).

New York State. Formerly a fairly common fall transient at Ossining (Fisher). This species seems to have decreased much more than the Greater. Mr. Chapin tells me it was a rare bird on Staten Island fifteen years ago, and there are no recent records anywhere in our area.

CENTRAL PARK. A lone bird observed May 11, 1910 up-town (Griscom), and subsequently recorded in the Proceedings of the Linnæan Society. This record should be cancelled. In spite of the fact that it was observed at leisure at a distance of less than fifty feet, there was no standard for size comparison available. The rarity of the bird in spring, coupled with the fact that its presence in the Park would be purely casual, make ideal circumstances for identification absolutely essential.

BRONX REGION. Formerly a common fall transient on the flats near Watson's Woods, July 26, 1913 (Griscom) to September 20, 1913 (Hix). Not recorded since this locality was destroyed.

New Jersey. Now known only as a very rare spring and an uncommon fall transient on the Newark and Hackensack Marshes; July 14, 1921 to October 9, 1921 (Urner). Reported forty years ago as a common transient at Morristown (Thurber). See below for Plainfield records.

ENGLEWOOD REGION. Rare transient in the fall, July 31, 1920 (Griscom and LaDow) to October 15, 1922 (Hix); two spring records, April 25, 1914 (F. M. Chapman) and May 16, 1920 (Granger, Griscom, Janvrin). In the latter case, there were three birds, direct comparison in size with a Greater

Yellowlegs was obtained, and near by were two Solitary Sandpipers, so that the circumstances were as ideal as possible.

PLAINFIELD REGION. Reported May 10, 1912 on the Dead River by G. E. Hix, but as a scientific record this observation is open to the same objections as the Central Park record discussed above. A single bird observed at close range with a Greater Yellowlegs May 21, 1922 (Miller) on the Dead River.

SOLITARY SANDPIPER (*Helodromas solitarius*)

This is one of the few Shore-birds which is commoner inland than on the coast. While it occurs occasionally in sloughs in the salt marshes, it is practically casual on the outer beaches. The Solitary is sometimes confused with the Spotted Sandpiper and the Lesser Yellowlegs, but this is due to inattention or lack of familiarity with the descriptions in any standard text-book. Rare in April and October.

Long Island. Fairly common transient; May 5 to June 6; July 8 to October 14.

ORIENT. Rare transient. May 9, 1913 to June 6, 1914; July 8, 1916 to October 3, 1920.

MASTIC. Fairly common transient.

LONG BEACH. Casual on migration, August 11, 1921 (Bicknell) to September 20, 1909 (Griscom).

New York State. Now an uncommon transient in most of our area, civilization seriously affecting its habitats.

CENTRAL PARK. Up to 1915 a regular but uncommon transient, now rare. April 26, 1912 (Anne A. Crolus and LaDow) to May 25, 1909 (Griscom); August 4, 1910 (Hix) to October 10, 1911 (Griscom); casual November 1, 1903 (Hix).

BRONX REGION. Now an uncommon transient; April 30, 1889 (L. S. Foster) to May 30, 1909 (Griscom); July 26, 1913 (Griscom) to October 14, 1905 (Hix).

New Jersey. Fairly common only near the Hudson River Valley, otherwise a common transient throughout. Noted April 18, 1915 on the Dead River (Miller and Rogers). Noted as early as July 5, 1920 in the Hackensack Marshes near Kingsland (Rogers) and July 10, 1920 at Newton (Griscom); the latest date is October 16, 1921 near Elizabeth (Urner).

ENGLEWOOD REGION. Fairly common transient. April 30, 1917 (Rogers) to May 18, 1913 (Griscom, LaDow, Lenssen); August 14, 1921 (Bernard Fread), to October 2, 1904 (Hix and Parmelee).

WILLET (*Catoptrophorus semipalmatus*)

In Giraud's day the Willet was apparently a common visitor to Long Island, and may have bred, though evidence is lacking. More recently it was known as a very rare spring and irregular fall transient, and various theories were evolved to account for it. The most popular of these was that like the Egret it wandered north after the breeding season in search of feeding grounds. The value of this theory is considerably impugned by the recent discovery that the bird breeds quite commonly in parts of Nova Scotia. Its scarcity is easily accounted for by the relatively small number of birds breeding north of Long Island. The large size of the Willet, its striking black and white wing pattern, and vociferous cries render it unmistakable.

Long Island. Rare spring, uncommon fall transient. April 29 to June 5; July 4 to September 16.

ORIENT. Rare fall transient, July 10, 1920 to September 8, 1913.

MASTIC. Uncommon transient.

LONG BEACH. Uncommon fall transient, two spring records; June 5, 1921 (Hix and Janvrin) and June 15, 1922 (Bicknell); July 16, 1914 (Bicknell) to August 29, 1915 (Bicknell). Mr. Bicknell writes that a few are observed in late summer nearly every year.

WESTERN WILLET (*Catoptrophorus semipalmatus inornatus*)

The western race of the Willet has never been definitely recorded from New York State, though Chapman and Eaton both suspected its probable occurrence. It is possible that the August flights may in part be this subspecies, whose status on Long Island is probably, though not positively, the same as the Long-billed Dowitcher. At least this infer-

ence is born out by the evidence from other parts of the Atlantic seaboard. I find seven specimens in the Dwight collection critically determined by him.

Long Island. Probably a rare fall transient. To be identified only when shot, carefully sexed, and measured. A pair taken in August 1894 by Stephen Van Rensselaer Jr. at Bellport; a pair shot at Amityville August 14, 1897 by Wm. C. Braislin, and wrongly identified; three birds collected by Chapin and H. C. Raven at Hempstead Bay, August 15, 1908.

RUFF (*Machetes pugnax*)

An accidental straggler from Europe. Captured on Long Island October, 1851, and May 15, 1868. A recent record is September 26, 1914 as recorded by W. deW. Miller (Auk, April, 1915, page 226).

UPLAND PLOVER (*Bartramia longicauda*)

The Upland Plover or Bartramian Sandpiper is now one of our rarest birds, and in most parts of our area is gone for ever. No more, I fear, will the student hear its "prolonged, mournful, mellow" whistle, one of the never-to-be-forgotten sounds of Nature, unless he makes a special trip to a few favored localities. Near New York City, I think, civilization is as responsible as persecution. The bird is shy and wild, requiring a great deal of "elbow room." Even in remote sections of northern New Jersey, the farms are smaller and more numerous than formerly, and the grassy meadows and pastures are too restricted for the bird's requirements. This theory is confirmed by the fact that not only is it extinct as a summer resident, but it does not even occur on migration in most of our area. In a few favored localities on Long Island, however, the Upland Plover still occurs as a transient, almost entirely in the fall.

Long Island. Formerly a common summer resident on the Hempstead Plains, Shinnecock Hills, Montauk Point, and Gardiner's Island, abundant during the migration in August, and of more general distribution. Known to have bred on Gardiner's

Island in 1911 (Harper), but it is very doubtful if it still does, as several cottages have now been built on the downs. At least one pair nested near Easthampton in 1920 (Helmuth), and the bird can probably still be found on the extensive downs near Montauk Point. As a transient, still regular in the Montauk region, now rare elsewhere, and casual on the outer beaches. Up to fifteen years ago regular in August and September at Rugby (Hix and Wiegmann), this locality now destroyed. Only one record on the Hempstead Plains in recent years. April 5 to September 17 (October 20). Migrants appear in July.

ORIENT. Formerly a common summer resident, perhaps still nesting locally; otherwise a rare visitant at present. April 5, 1905 and April 9, 1914; June 30, 1907 to September 7, 1907. Nested on Gardiner's Island in 1911 (Harper).

MASTIC. No record.

LONG BEACH. Casual, September 14, 1918 (Janvrin). Reported by the Life Saving Crew as heard flying over every summer (Bicknell).

New York State. A single bird heard flying over the city on a foggy night in late July, 1913, giving its characteristic call (Griscom). Barring this most unsatisfactory observation, I cannot find a single record, old or recent, for the Upland Plover in our area.

New Jersey. Formerly a common summer resident in many localities. Now almost extirpated. Bred commonly at Morristown in 1886 (Thurber); not recorded from there since early May 1900 (Griscom). Writing in 1904, La Rue K. Holmes records two pairs nesting in a field near Summit; no record since. Found breeding at Ridgewood, Bergen Co., in 1901 (Fowler); now unknown. May still breed near Raritan, and heard occasionally flying over in summer elsewhere in the Plainfield Region (Miller). I have only two recent migration records, a flock reported near Bernardsville in the fall of 1909 (John Dryden Kuser), and from August 2 to September 3, 1922, on the Newark meadows, a maximum of four birds (Urner).

ENGLEWOOD REGION. No record.

BUFF-BREASTED SANDPIPER (*Tryngites subruficollis*)

In Giraud's day this western species was believed to occur almost every season on Long Island in the fall. It is now known as a rare or very rare fall transient, and the published records show that about twenty specimens have been shot.

Long Island. Rare or very rare fall transient, August 25 to September 17.

ORIENT. One record, September 5, 1906.

MASTIC. One record, August 28, 1888, specimen shot by Dr. Rolfe Floyd and recorded by Dutcher.

LONG BEACH. One record, specimen shot by Frank E. Johnson, August 31, 1894, recorded by Braislin.

SPOTTED SANDPIPER (*Actitis macularia*)

A common summer resident throughout our area from the ocean beaches of Long Island to the Delaware River, and the only Sandpiper really well known to most bird students inland. The average date of arrival is about April 28, extreme dates ranging a week earlier. The summer resident population does not reach normal numbers until the second week in May. It is exceptional to see a Spotted Sandpiper inland after the middle of September.

Long Island. Common summer resident, April 20 to October 1, exceptionally to October 25.

ORIENT. Common summer resident, April 20, 1908 to October 12, 1913; average, April 28 to October 2.

MASTIC. Common summer resident.

LONG BEACH. Common summer resident, April 22, 1920 (Bicknell) to September 28, 1916 (Bicknell) and October 10, 1918 (Bicknell).

New York State. Common summer resident except on Manhattan Island, and the region near the City; as a transient common throughout. The earliest arrival date is April 19, 1914 on Staten Island (Cleaves).

CENTRAL PARK. Common transient; April 21, 1916 (L. N. Nichols) to May 30, 1901 (S. H. Chubb); August 2, 1908 (Griscom) to October 13, 1912 (Hix).

BRONX REGION. Common transient, not known to have nested since 1917; May 4, 1910 (Griscom) to August 28, 1915 (Hix).

New Jersey. Common summer resident throughout. The earliest arrival date is April 16, 1922 near Elizabeth (Urner); latest October 8, 1916 near Elizabeth (Urner).

ENGLEWOOD REGION. Common transient, uncommon summer resident, April 28, 1912 (J. T. Nichols) to September.

HUDSONIAN CURLEW (*Numenius hudsonicus*)

The Jack Curlew is one of the few larger Shore-birds, which has shown no signs of increase in the last few years. It is a decidedly rare bird near New York City. It is a strong and steady flier, and in spring is rare and irregular, apparently passing by Long Island. The fall migration is chiefly in July, and even then it is decidedly local. Many erroneous reports of Eskimo Curlew are based on immature Jack Curlew, and this is much more true of gunners and sportsmen than bird students. There is a notion that a short-billed Curlew must be an Eskimo, whereas the facts are that the bill of a young Jack Curlew is sometimes not more than one and one-half inches in length.

Long Island. Rare spring, fairly common but local fall transient; (April 17) April 28 to May 31; July 2 to October 2; casual December 24, 1912 (Miss Charlotte Bogardus, Auk, April, 1913).

ORIENT. Rare fall transient, July 12, 1916 to October 2, 1917; average arrival, July 20.

MASTIC. Fairly common fall transient.

LONG BEACH. A decidedly rare transient; several flocks observed in May, 1910 (Griscom and Hix); about nine spring records between April 17, 1918 (Bicknell) and May 31, 1914 (Rogers); July 4, 1919 (Bicknell) to September 22, 1921 (Bicknell).

WHIMBREL (*Numenius phæopus*)

The only specimen of this European species ever captured in the United States was shot on Jones Beach, Long Island, September 4, 1912. (See Miller, Auk, 1915, p. 226).

LAPWING (*Vanellus vanellus*)

A well known European species, which has twice occurred accidentally on Long Island, in 1883 and 1905.

BLACK-BELLIED PLOVER (*Squatarola squatarola*)

There are few finer sights in the Shore-bird world than a flock of these handsome plover in full breeding plumage

scattered over a mud-flat, or flying by in long lines uttering their sad musical call, which is suggestive of a Bluebird's. The last ten years has witnessed a marked increase, especially in the spring, and flocks containing many hundred birds can be seen annually at Long Beach the last week in May. The bird is strictly maritime, and is rare or casual inland in our area.

Long Island. Common transient; April 30 to June 20; (July 1) July 11 to November 12 (November 26). Rare before the middle of May and in July.

ORIENT. Common transient; May 14, 1902 to June 10, 1908; July 4, 1909 to November 8, 1910.

MASTIC. Fairly common transient.

LONG BEACH. Common transient; April 23, 1916 (Bicknell) and May 5, 1918 (Janvrin) to June 23, 1921 (Bicknell) and July 3, 1919 (Bicknell); July 7, 1921 (Bicknell) to November 26, 1917 (Griscom and J. T. Nichols).

New York State. Regular transient formerly on the bay shore of Staten Island (Chapin). Accidental at Ossining (Fisher).

New Jersey. Mr. Chas. A. Urner has one spring and two fall records on the Newark Bay marshes, but reported there as regular in fall by local gunners.

ENGLEWOOD REGION. According to local gunners, of regular occurrence in the fall on Overpeck Creek, though they call it the Golden Plover. Possibly one or two immature birds occur each season. Three birds shot October 2, 1909 by a local gunner; another shot October 21, 1916 (Weber).

GOLDEN PLOVER (*Charadrius dominicus*)

In Giraud's day this famous game bird was a common transient both in spring and fall on Long Island. By 1882, when Mr. Dutcher started his notes, it had greatly decreased. He obtained only two spring records, and in the fall recorded several "flights" which took place with high on-shore winds. Such "flights" occurred in 1886, 1887, 1888, 1889, and 1893. In these cases good sized flocks were noted. In recent years "flights" have been reported, but if the lucky observer sees half a dozen birds he calls it a "flight," or if several observers

record a single individual apiece during early September, a "flight" is said to have occurred. While it is probable that a few individuals are noted annually on eastern Long Island, the "flights" of former days are a thing of the past, never to come again. At the western end of Long Island the Golden Plover is now an exceedingly rare bird, and it is casual anywhere inland.

To distinguish the Golden Plover from the Black-bellied by plumage characters is not easy ordinarily, as the former is generally very wild and shy. The Golden Plover lacks the conspicuous black axillars and the conspicuously whitish tail of its relative. The call note, however, is absolutely diagnostic, a harsh "*queedle*" with the accent on the first syllable, utterly lacking the mournful, musical quality so characteristic of the Black-bellied. I well remember collecting a Plover one October evening which I knew had to be a Golden Plover by its call as it came in, though I had never heard it before, and it was so dark that I had to strike a match to find the bird on the mud-flat where it had fallen.

Long Island. Formerly regular in spring, numerous in fall. Now a rare bird, a few scattering individuals noted annually. April 7, 1882 and May 10, 1885 are the last spring records. In the fall from August 1 to November 12.

ORIENT. Rare and irregular in autumn; August 23, 1903 to November 1, 1906.

MASTIC. Rare and irregular in fall.

LONG BEACH. Two birds September 22, 1919, one found dead (R. Friedmann); also August 12, 1917; September 27, 1917; October 26, 1916 (all Bicknell).

New York State. No record, old or recent, in our area.

New Jersey. Reported by Thurber as a rare transient at Morristown in 1886. Mr. Urner informs me that "during the middle and late 90's Golden-backs were by no means rare on the local salt meadows [Newark Bay marshes]. . . They were taken more frequently than "Bull-heads," and usually were secured most readily over decoys set on freshly burned meadow. The last birds I saw taken were about 1904 in the fall." On November 6, 1921 Mr. W.

deW. Miller saw a Golden Plover on a golf course near Plainfield. On September 17, 1922 Mr. Urner found two birds on an extensive area of burned meadow south of Newark; these birds were approached within 30 yards, and watched on the ground for over ten minutes.



Photograph by A. A. Allen

Fig. 13. Killdeer.

KILLDEER (*Oxyechus vociferus*) Fig. 13

The Killdeer is a bird with a peculiarly erratic distribution in our area, for which no ready explanation is at hand. In our section of New York State it is a rare summer resident and rare or uncommon transient. In New Jersey it is a common summer resident west of a line running north and south about twenty miles west of the Hudson River. East of this line it is rare and local in summer, and rare as a transient. Its most marked characteristic is its noisiness, and where it

is common, the ear grows weary of its perpetual outcry, which continues night and day.

Long Island. Fairly common transient, locally, rare elsewhere; recorded in every month of the year; breeding locally on the Hempstead Plains, and definitely recorded also at Orient and Long Beach. February 23 to May 30; July 4 to December 14.

ORIENT. Rare summer resident at Orient. Elsewhere a rare visitant, occurring at any season of the year. Transients usually arrive from February 25, 1907 to March 20, 1910.

MASTIC. Uncommon fall transient, earliest July 4, 1919.

LONG BEACH. Uncommon transient, chiefly in fall; February 23, 1913 (Hix); May 30, 1920 (Granger, Janvrin, Rogers); August 16, 1914 (Hix and Rogers) to December 8, 1921 (Bicknell). A pair bred in 1920 and raised young (Bicknell).

New York State. Rare transient on Staten Island (Chapin), a pair found nesting for several seasons (Cleaves). In Westchester County a rare transient, no definite breeding record.

CENTRAL PARK. Casual, one record, September 3, 1884 (E. T. Adney).

BRONX REGION. Breeds at Clason Point, otherwise scarce, recorded in every month of the year. March 22, 1914 (Kieran) to May 26, 1917 (Chubb); August 9, 1921 (Griscom) to November 28, 1912 (Hix).

New Jersey. Common summer resident throughout, to a line running about twenty miles west of the Hudson. East of that line rare and local both as a transient and summer resident. Locally common in the Plainfield region (Miller) and near Elizabeth (Urner).

ENGLEWOOD REGION. Uncommon transient, February 7, 1915 (R. S. Lemmon) and March 19, 1914 (R. S. Lemmon) to April 5, 1914 (Griscom); August 7, 1912 (J. T. Nichols) to December 1, 1916 (Weber). A pair has bred for several years in a field west of West Englewood.

SEMIPALMATED PLOVER; RINGNECK (*Aegialitis semipalmata*)

The Ringneck is one of our most abundant Shore-birds. During May and August it is almost impossible to avoid seeing it on the mud-flats of the outer beaches, and I have seen a thousand birds scattered over the famous Gilgo Flats. The plaintive double-noted call is characteristic.

Stragglers occasionally occur inland, and apparently the Hudson Valley is a regular migration route for a limited number of individuals.

Long Island. Abundant transient. April 19 to June 5 (July 3); July 5 to November 8. Scarce before the end of July and after September 15.

ORIENT. Uncommon transient. May 1, 1914 to June 1, 1916; July 6, 1906 to October 2, 1913.

MASTIC. Common transient.

LONG BEACH. Abundant transient; April 26, 1917 (Bicknell) to June 13, 1921 (Janvrin), exceptionally June 20, 27, and July 3, 1918 (Bicknell); July 5, 1917 (Bicknell) to October 28, 1917 (Janvrin), November 2, 1917, November 7, 1918, and November 8, 1921 (all Bicknell).

New York State. Regular transient on Staten Island, at least formerly (Chapin), noted as late as June 4, 1909 (Griscom). Formerly a common fall transient at Ossining (Fisher); probably still occurs in such favorable habitats as remain, as it occurs further north in Dutchess County (Crosby).

BRONX REGION. Formerly a common transient on the flats near Watson's Woods; May 10, 1912 (Griscom) to June 1, 1909 (Griscom); July 26, 1913 (Griscom) to October 3, 1908 (Hix). Unrecorded since this locality was destroyed.

New Jersey. A regular transient on Newark Bay (Urner). Rare, casual, or unknown elsewhere; about three spring records near Plainfield (Miller).

ENGLEWOOD REGION. One record on Overpeck Creek, a flock of about twelve May 26, 1917 (Weber). It should occur in August, when there has been little or no observation.

PIPING PLOVER (*Aegialitis meloda*)

In Giraud's day the Piping Plover was a common summer resident along the south and east coasts of Long Island. By 1900 breeding birds were reduced to a few pairs at the extreme eastern end, and it was a rare transient elsewhere, while near New York City it was an event to see one. In 1909 Dr. Stone questioned whether it still occurred in the State of New Jersey. The development of seaside resorts and the steady encroachment of man are the causes usually

assigned for the decrease of this species. If this be the correct explanation, the bird has adapted itself to the changed conditions, as it began to increase steadily as a transient about 1910, and is now a common summer resident even on Long Beach, which is crowded with people the whole summer. Few more gratifying changes have taken place in our bird-life, and a sight of the little pale gray figures trotting over the sand, uttering their musical piping note, provides a welcome picture in a somewhat bleak and harsh landscape. I know of no birds that express innocence more than the Plovers, and of these none more so than the Piping. The round eyes and bobbing head express interrogation rather than alarm, and shooting them is a sorry travesty of sport. The close resemblance of the bird's colors to sand is extraordinary, and in proper conditions of light and position, it simply disappears when motionless. It is the first of the Shore-birds to arrive in spring, but departs comparatively early, and is rarely seen after the middle of September. It is strictly confined to the sand dunes of the outer beaches, and is accidental elsewhere in our area.

Long Island. A summer resident, generally uncommon, locally common or even abundant, as on Jones Beach; elsewhere in favorable localities a fairly common transient; steadily increasing. March 3 to September 20 and exceptionally to November 7.

ORIENT. Uncommon summer resident, local. March 4, 1903 to September 23, 1914.

MASTIC. Uncommon transient.

LONG BEACH. Formerly a rare transient, now a common summer resident, March 10, 1921 (Bicknell) and March 25, 1917 (Janvrin) to October 17, 1915 (Fleischer) and November 7, 1911 (Griscom, LaDow, Rogers, and Wiegmann).

Accidental in 1898 at Ossining (Fisher).

WILSON'S PLOVER (*Ochthodromus wilsonius*)

A century ago Wilson's Plover was a fairly common summer resident on the coast of New Jersey. On Long Island it occurred regularly, but was not very common according to

Giraud. There seems to be no definite record of its nesting. The bird has not been known to nest in New Jersey since 1886, and no specimen has been taken on Long Island since 1884. Its occurrence at the present time would be purely accidental. There are three recent sight records which are well authenticated. Wilson's Plover bears a close resemblance in color to the common Ring-neck, but has a *long, stout*, dark bill, almost as long as the head, whereas the Ring-neck has a short black, and orange bill, less than half the length of the head. This character cannot be overlooked by anyone really familiar with the latter species.

Long Island.

ORIENT. One record, July 3, 1915.

LONG BEACH. Specimen shot July 1, 1872 (Newbold T. Lawrence). Single birds most satisfactorily identified May 2, 1918 and May 29, 1919 (E. P. Bicknell).

RUDDY TURNSTONE (*Arenaria interpres morinella*)

The Turnstone prefers the mud-flats and sandbars of the outer beaches, and in our area is unknown or casual elsewhere. No Shore-bird is so strikingly colored in spring plumage, and it cannot be confused with anything else for a moment. The young bird in the fall can always be recognized by the conspicuous white stripes down the back when it flies, and by the peculiar chuckling whistle. The Turnstone has increased markedly in recent years near New York City, and large flocks can be found on Long Beach every May.

Long Island. Common transient. May 1 to June 10 (June 27 and July 3); (July 10) August 3 to October 18.

ORIENT. Common spring, rare fall transient. May 12, 1908 to June 23, 1908 (Francis Harper); average, May 14 to June 8; July 15, 1917 to October 14, 1920.

MASTIC. Fairly common transient.

LONG BEACH. Common transient; May 4, 1919 (Granger and Janvrin) to June 23, 1921 (Bicknell), exceptionally to June 27, 1918 (Bicknell) and July 7, 1921 (Bicknell); August 3, 1922 and August 9, 1917 (Bicknell) to September 27, 1917 (Bicknell) and October 18, 1922 (Hix).

Accidental at Ossining (Fisher).

BOB-WHITE (*Colinus virginianus*)

The rapid decrease of this well known game bird near New York City is a matter of common knowledge, but is due as much to the steady advance of civilization as to indiscriminate slaughter. The average suburban nimrod of the present generation is quite incapable of hitting a Quail, as this bird is generally miscalled. The bird-lover, however, misses the clear spring whistle of the male and the covey call in late summer and fall, and realizes regretfully that an attractive feature of the countryside has gone forever.

The Bob-white has always been seriously reduced in numbers by severe winters, and just at present its numbers seem to be at a particularly low ebb. Chapman and Stone have both pointed out that sportsmen have frequently introduced southern stock to prevent total extermination, and it is doubtful if any true unmixed blood remains.

Long Island. A fairly common resident, especially in the pine barren region; rare or extinct near the city.

ORIENT. A resident, common or rare according to locality.

MASTIC. Common resident; temporarily extirpated in the winter of 1919-1920.

New York State. Perhaps a few introduced birds still exist on Staten Island. A few birds may still survive in Westchester County.

CENTRAL PARK. Formerly resident. Extinct since 1893.

BRONX REGION. Formerly a common resident. A small covey still survives in the Van Cortlandt Park swamp. Long since extinct elsewhere as a native species.

New Jersey. Very rare or extinct throughout most of our area; still present along the Delaware River above Dingman's Ferry, and near Vernon, Sussex County (Griscom).

ENGLEWOOD REGION. Extinct near Englewood since 1901; recorded near Closter, May 31, 1915 (W. H. Wiegmann), and at Demarest in March, 1916 (Bowdish) so it may still exist in northern Bergen County.

RUFFED GROUSE (*Bonasa umbellus*)

The history of the Ruffed Grouse is much the same as that of the Bob-white. Being a woodland bird, however, it has survived much better in the outlying sections, and is now actually the commoner species, which is the exact reverse of the normal condition of affairs. It is much hardier than the Bob-white, and has not been affected by recent severe winters. A curious variation in numbers has long been known in the Ruffed Grouse, a steady decrease followed by a sudden increase or "come-back," without any apparent cause or explanation. Such an increase is now taking place locally in parts of northern New Jersey. Perhaps the least migratory of our native birds.

Long Island. Now an uncommon local resident.

ORIENT. Recorded from Laurel; otherwise unknown.

MASTIC. Uncommon resident.

New York State. Perhaps still existing in parts of Westchester County, but data lacking. Long since extinct elsewhere.

New Jersey. Now extinct in all suburban sections near New York City. Still surviving locally at a few points within thirty miles of the City, as in the hills north of Plainfield (Miller), and a marked local increase is reported in the last two years at Boonton (Carter). Increasing northwestward and positively abundant in remote sections of the Kittatinny Mountains. I saw sixteen birds on July 11, 1920 near Lake Mashipacong.

ENGLEWOOD REGION. Long since extirpated.

PHEASANT (*Phasianus colchicus*)**RING-NECKED PHEASANT** (*Phasianus torquatus*)

Both species of Pheasants have been listed, as it is doubtful if any of the birds which have been introduced in various parts of our area are of unmixed blood. Pheasants are common on Gardiner's Island, but a large outlay of money is required to keep them so. They are also reported occasionally from Orient and Greenport, Long Island (Latham). First noted in the Bronx Region in 1916, uncommon but increasing (L. N. Nichols). Occasionally seen near Englewood and

is now common near Plainfield. Bird students may expect to put up a Pheasant almost anywhere at any time. It remains to be seen, however, whether these wandering birds will be able to survive without special protection. For the present they cannot be considered a true part of our avifauna, as is unfortunately the case with the Starling and House Sparrow.

MOURNING DOVE (*Zenaidura macroura carolinensis*) Fig. 14

The Dove is generally a fairly common summer resident with us, but is locally scarce near New York City. It has a marked preference for sandy fields, and is fond of nesting in pine groves and to a less extent in orchards. It is quite shy, and in spring the mournful “*coo-ah-ah*” or the whistling of the wings are more frequently heard than the bird is seen.

Long Island. Fairly common summer resident, but rare or absent at the western end of the island; occasional in winter. March 14 to November 26.

ORIENT. Locally an uncommon summer resident, usually rare; occasionally seen in winter. March 19, 1911 to November 26, 1919; average March 22 to October 20.

MASTIC. Common summer resident, a few sometimes winter.

LONG BEACH. Casual on migration; March 31, 1912 (Griscom); April 2, 1914 (Bicknell); May 7, 1922 (Hix); October 31, 1920 (Janvrin and Charles Johnston); October 13, 1921 (Bicknell).

New York State. Now scarce in Greater New York City, probably commoner in Westchester County.

CENTRAL PARK. Very rare visitor, only twice in fall; eight records in last eighteen years, March 26, 1905 (Hix) to June 6, 1907 (Chubb); reported chiefly in late April and early May, long after the normal migration period; September 7 and October 4, 1922 (Griscom).

BRONX REGION. Decidedly uncommon transient, chiefly in spring; March 22, 1919 (C. L. Lewis) to May 23, 1920 (L. N. Nichols); October 12, 1912 (Griscom and LaDow).

New Jersey. Common summer resident throughout from the middle of March to December, rarely wintering; absent from the



Photograph by A. A. Allen

Fig. 14. Mourning Dove.

wilder and wooded sections in the extreme northwestern sections of Warren and Sussex Counties, and rare or uncommon in the suburban section near New York City.

ENGLEWOOD REGION. Rare summer resident, March 19, 1916 (W. C. Tucker) to October 10, 1915 (J. M. Johnson and Rogers) and November 12, 1922 (Hix); a few winter records.

TURKEY VULTURE (*Cathartes aura septentrionalis*)

No bird has a more remarkable distribution in our area than the Turkey Vulture, and I confess my total inability to explain it. Moreover it is now known to be quite different from what has been previously reported. In New Jersey it was supposed to range north regularly to Sandy Hook, Plainfield, and Princeton, and casually further north. As a matter of fact it is a common summer resident in western and northwestern New Jersey right up to the New York State line, especially along the Kittatinny Ridge. Here it undoubtedly breeds, as I have flushed single birds in late May and early June from the ground in thick, rocky woods, and it has been found nesting near Boonton and Denville. The bird is common in most of Warren, Sussex, and Passaic Counties, and steadily *decreases* eastward and southeastward. East of a north and south line running approximately through Plainfield and Boonton it is an exceedingly rare bird until we get south to Staten Island, where it reaches the coast. This line of demarcation is quite sharply defined in places. At Boonton Mr. Carter informs me that it occurs regularly six miles west of the town, but he has never seen it further east. Similarly at Plainfield Mr. Miller finds it is much rarer to the east. On Long Island the bird is occasional in spring and summer at the extreme western end, notably in Prospect Park, Brooklyn, and also at the extreme eastern end in the Orient Region. In the intervening area it is very rare or unknown. In the rest of New York State in our area it is a very rare visitor.

The Turkey Vulture can be recognized with practise at the limit of human vision. The very long wings are narrower than those of a Bald Eagle, and the tail is never spread like a fan. Its flight is light and graceful, while that of the Bald Eagle impresses one as heavy and powerful.

Long Island. Occasional summer visitant. March 20, 1908, Prospect Park (E. Fleischer) to September 5 and December 23.

ORIENT. Uncommon visitant; May 3, 1908 to December 23, 1917.

MASTIC. No record.

LONG BEACH. April 9, 1922 (Roger C. Whitman); a pair April 18, 1922 (C. H. Lott).

New York State. Very rare, except on Staten Island, where it is of regular occurrence, the earliest date April 6, 1913 (Cleaves). Recorded June 4, 1922 at Pleasantville, Westchester County (Frank E. Watson).

CENTRAL PARK. Casual, one record of a bird flying overhead years ago (F. M. Chapman).

BRONX REGION. Very rare; seen on several occasions flying over the Zoological Gardens (Lee S. Crandall).

New Jersey. Common summer resident in the extreme western and northwestern sections (Miller and Griscom), east to Greenwood Lake (Miller), Newfoundland (Miller), Denville, just west of Boonton, Bernardsville, and Plainfield; young in the nest have been found near Denville and Boonton. Very rare east of these points near the Hudson River; one record for Morristown (Thurber); casual near Summit (Hann); unknown at Ridgewood (J. M. Johnson); no records in recent years near Elizabeth (Urner); March 20, 1911, Bernardsville (Kuser) to November 2, 1911, High Point, Sussex Co. (Kuser).

ENGLEWOOD REGION. Very rare visitor, only three records; April 12, 1902 (Rogers); April 15, 1911 (Hix and Rogers); June 12, 1915 (Fleischer).

BLACK VULTURE (*Catharista urubu*)

A southern species which has straggled as far north as our territory on a few occasions. A sight record should, therefore, be made with the greatest care. The two species of Vultures afford an excellent illustration of a principle in

sight identification which often puzzles or irritates inexperienced students. It is perfectly true that either can be recognized at the limit of human vision by anyone who knows both birds well. It is equally true that an observer who does not know the Black Vulture, and who identifies it by its black head and silvery wings, has not produced a record of any scientific value. The young Turkey Vulture has a black head, the red head of the adult looks black at any distance unless the light strikes it just right, and similarly the light playing through its half-spread primaries often gives a false grayish or silvery effect. The Black Vulture is, however, readily identifiable on the wing by shape and flight characteristics. It is a heavier bird than the Turkey Vulture, the wings are flapped more often and more rapidly, and the *short tail barely projects beyond the hind edge of the wings*. A specimen has been taken near Sandy Hook just outside our area, and two on Long Island. There are two sight records worthy of consideration.

Long Island. One specimen found on Coney Island Beach about 1881. One shot on Plum Island, May 19 or 20, 1896 by a farmer, preserved by Mr. C. W. Crandall of Woodside, and examined by Dr. Wm. C. Braislin (see Auk, 1909, p. 315). Mr. Roy Latham reports *seeing* a Black Vulture at Orient May 4, 1907 and June 20, 1916.

SWALLOW-TAILED KITE (*Elanoides forficatus*)

An accidental visitor from the South, formerly straggling northward, when it was a much commoner species in the East, with a wider range than it now has.

Long Island. Two captures, in 1837 and 1845.

New Jersey. One shot near Chatham about 1873 (Herrick). A record of two seen September 18, 1887 near Morristown by L. P. Shirrer and George Held is without any details, and is not convincing.

MARSH HAWK (*Circus hudsonius*)

The Marsh Hawk is a permanent resident near New York City, but is locally uncommon or absent in summer and in winter. As a transient it is common throughout, and at this season occurs in all types of unforested country. Adult males are comparatively scarce. They occasionally perform complicated aerial evolutions, dropping from a height, looping the loop, or turning completely over sideways. Marsh Hawks can always be recognized at any distance by the *long, pointed* wings, steady flight, and *long, squarish* tail.

Long Island. Fairly common summer resident, uncommon permanent resident. Migrants arrive in numbers the third week in March and again in late September.

ORIENT. Rare summer resident, more common transient; frequently in winter. March 1 to May 15; August 1 to December 1.

MASTIC. Fairly common permanent resident.

LONG BEACH. Permanent resident, occasional in summer and frequent in winter, common on migration, which has commenced as early as August 4, 1921 (Bicknell)

New York State. Now extirpated as a breeding species except possibly in northern Westchester County, and uncommon at all times of the year near the City.

CENTRAL PARK. Now very rare or casual during migration; no record since May 15, 1906 (Hix).

BRONX REGION. Bred in Van Cortlandt Park swamp at least up to 1896 (Dwight); bred in the West Farms marshes in 1909 (Griscom); now an uncommon transient; April 15, 1916 (L. N. Nichols); September 18, 1921 (L. N. Nichols) to December 6, 1917 (L. N. Nichols).

New Jersey. Now rare or absent near the City as a breeding species, but two pairs nest on the Newark Marshes near Elizabethport (Urner) and another on the Overpeck Marshes near Leonia (Griscom). Increasing as a summer resident westward and northward, but nowhere really common. As a transient common throughout. Not infrequently wintering on the marshes near New York City, but rare or absent northwestward at this season.

ENGLEWOOD REGION. A pair breeds on the Overpeck Marshes. Common transient, uncommon in winter; always present from mid March to mid May and from early September to December.

SHARP-SHINNED HAWK (*Accipiter velox*)

This and the next two species can be readily distinguished from our other Hawks by their short rounded wings and long tails, which are never pointed. The dashing flight is usually in alternate periods of flapping and sailing. When migrating they usually fly at a great height, but when hunting they fly below the tree-tops. Shy and wary, they are seldom seen perched, and a really good study of one is exceptional. As a result the identification of the several species in life is quite critical, as it is with most of our Hawks. Indeed it is no exaggeration to say that none of our local birds are so frequently misidentified, on imaginary characters as well.

Anyone who knows enough to recognize an *Accipiter* when he sees it can hope to distinguish the Sharp-shinned from the Cooper's on a fair proportion of occasions. Adults of both are bluish-gray above, but the Cooper's has a *blackish cap*. In this plumage both species are *finely barred* below. This will serve to eliminate the adult Pigeon Hawk, which is heavily streaked below, should a tame bird be found perched, when the cut of wings and tail is indeterminable. There are no color differences in immature birds. When it comes to size, the difference between a male Sharp-shinned and a female Cooper's is so marked as to be readily noticeable. Female Sharp-shins and male Cooper's cannot, however, be separated safely by size in life. The Sharp-shinned often has a square tail, the Cooper's a distinctly rounded one, but large Sharp-shins often have a *partially rounded* tail. This character is not, therefore, the absolute one that many students believe it to be.

The Sharp-shinned Hawk is a common transient throughout our area, often abundant in well-marked flights with a northwest wind in the fall, these flights best marked at the eastern end of Long Island and in the hills of northern New Jersey. It is uncommon in winter and summer.

Long Island. Common transient, uncommon permanent resident.

ORIENT. Common transient, rare in winter; March 1 to May 3; August 2 to December.

MASTIC. Uncommon permanent resident, common as a spring transient.

LONG BEACH. Very rare on migration; September 14, 1920 (Janvrin); December 12, 1918 (E. P. Bicknell).

New York State. Now extirpated as a summer resident except possibly in northern Westchester County. Rare in winter.

CENTRAL PARK. Uncommon but regular transient, occurring every year both spring and fall; April 8, 1909 (Anne A. Crolius) to May 16, 1917 (Janvrin); August 15, 1913 (Griscom) to December 25, 1906 (Rogers); February 5, 1909 (Griscom).

BRONX REGION. Formerly a summer resident, not found nesting since 1916; a common transient, April 23, 1916 (L. N. Nichols) to May 27, 1919 (L. N. Nichols); September 21, 1919 (L. N. Nichols) to November 3, 1916 (E. G. Nichols). These dates are very poor; no recent winter records.

New Jersey. An uncommon summer resident throughout the area, but now rare or absent near the City; a common transient; rare in winter.

ENGLEWOOD REGION. Common transient, rare in winter; March 21, 1915 (Rogers) to May 18, 1919 (Griscom); August 3, 1912 (Weber) to November 6, 1915 (R. S. Lemmon). Not positively known to nest in recent years, but its breeding in the northern section of the Region is suspected and is probable.

COOPER'S HAWK (*Accipiter cooperi*)

Cooper's Hawk must be regarded as a fairly common summer resident for a Hawk in the wilder parts of our territory, and is unquestionably more numerous at this season than the Sharp-shinned. As a transient it is much less common, however, and is equally rare in winter. Near New York City the observer will see at least ten times as many of the smaller species during the year. The extreme eastern end of Long Island is, however, an exception to this statement. On Gardiner's Island I should consider this species a common transient in the fall.

Long Island. Fairly common summer, occasional permanent resident.

ORIENT. Rare and local summer resident; less rare as a transient; rare in winter; August 28 to May 20.

MASTIC. Uncommon at all seasons.

LONG BEACH. Very rare on migration; one shot September 1, 1890 (J. D. Foot); September 8, 1921, September 29, 1921, and November 24, 1921 (Bicknell).

New York State. No longer nesting except possibly in northern Westchester County; uncommon or rare as a transient; rare in winter.

CENTRAL PARK. Very rare transient; May 17, 1917 (Janvrin); October 3, 1921 (Griscom) to November 7, 1904 (Hix); only five records in the last eighteen years.

BRONX REGION. Uncommon transient, rare in winter; March 18, 1918 (C. L. Lewis) to May 30, 1917 (Janvrin); September 11, 1917 (C. L. Lewis) to December 25, 1916 (L. N. Nichols); January 30, 1915 (Hix).

New Jersey. Relatively, a fairly common summer resident in the wilder section, absent near the City; a common transient in the hills of the extreme northwest (von Lengerke), uncommon elsewhere; rare in winter.

ENGLEWOOD REGION. Uncommon transient, rare in winter; March 18, 1911 (Griscom) to May 30, 1916 (Bowdish); August 20, 1887 (Chapman) to November 14, 1910 (Griscom and LaDow).

GOSHAWK (*Astur atricapillus*)

The Goshawk is one of our very rarest and most irregular winter visitants. Fierce, bold, and powerful, it is a scourge of game, poultry and our smaller birds, and from this point of view its local rarity is a blessing. In no other case is the collecting of the specimen as proof of a record so positively beneficial. The adult is said to have a paler and more uniform tone than any other Hawk except the Marsh Hawk, and this is regarded as a reliable field character. At close range the black cap and auricular patch separated by the white superciliary stripe, are distinctive. The immature bird cannot be told from a Cooper's Hawk unless carefully measured. It is true that a large female is much larger than a Cooper's Hawk, but the local rarity of the bird makes its

identification in life on size alone entirely unsatisfactory. Unfortunately the majority of the individuals which reach our area are immature. Well-marked flights have occurred on a very few occasions, in 1863, 1889, 1895-96, 1898-99, and in 1906. The last flight, however, did not materialize near New York City, and there are scarcely any records in the last twenty-three years. The Goshawk is, therefore, without any question, the rarest of the irregular winter visitants, whose occurrence cannot be regarded as casual or accidental.

Long Island. Very rare and irregular winter visitant, October 10 to April 19, more frequent at the eastern end; I know of only one record for the western end of the island since 1899, November 12, 1915, Half Hollow Hills (F. M. Schott).

ORIENT. Very rare and irregular winter visitant, December 16, 1908 to April 19, 1920 (both Gardiner's Island).

New York State. I have only one record.

BRONX REGION. One record; for several days in January 1919 an adult preyed upon the waterfowl in the Zoological Garden (Lee S. Crandall). Mr. Crandall most kindly acceded to my request for details, and sent me a full account of his experience. He succeeded in approaching the bird within 100 feet, but was never able to get a fair shot. He fired and scared it off.

New Jersey. In the extreme northwestern part of Sussex County, the Goshawk is an irregular winter visitor, occurring almost every winter, but is usually rare. Flights occurred in 1916-17 and again in 1917-18, and Mr. Justus von Lengerke killed nine the first winter and sixteen the latter near Stag Lake. He has kindly presented the Museum with specimens taken on dates ranging from October 19, 1918 to April 19, 1919. In the rest of the State, however, the Goshawk is so rare as to be practically unknown in recent years. An adult shot near Elizabeth about 1895 (Urner); recorded near Plainfield in December 1907, when three specimens were shot locally (Miller).

ENGLEWOOD REGION. One record, an adult male collected November 15, 1918 (Weber).

RED-TAILED HAWK (*Buteo borealis*)

The Buzzards, or *Buteo* group of Hawks, can always be recognized by their broad wings, short fan-shaped tail, and

soaring flight. As they wheel in circles high overhead, often uttering a scream which is audible when the bird is practically beyond the limit of vision, they are very conspicuous, and the farmer blames them for the ravaging of the poultry yard which is usually done by the silent and low-flying *Accipiter*.

Of our three species the Red-tail is the largest, soars with the minimum flapping of wings, and in the widest circles. It *should not, however, be identified* by these points alone. The adult has a red tail which is almost always visible at the moment when the bird wheels. The immature frequently resembles an immature Red-shouldered Hawk, and can hardly be distinguished at times in life. Few birds exhibit more variation in plumage. Practically black birds occur. I have seen individuals with whitish heads and primaries and otherwise splotted with whitish, and every stage in between is known. Such extreme plumages are readily recognizable, of course. A very common state has a distinct dark band on the breast, an effect which no plumage of the Red-shoulder produces. Very often there are a few dark feathers on the under surface of the wing at the bend or carpal joint, giving the appearance of a small dark patch. The scream of the Red-tail is more sputtering, with more of a squeal in it, than the clear note of the Red-shouldered Hawk.

In our area the Red-tail is chiefly a common winter resident, preferring river meadows and open marshes. It breeds only in the hill country of northern New Jersey and the wilder parts of Long Island.

Long Island. Common permanent resident.

ORIENT. Rare breeder on Gardiner's Island, but common there in winter (Griscom); otherwise an uncommon transient and winter resident, August 25 to April 26.

MASTIC. Fairly common resident.

LONG BEACH. One record, April 19, 1916 (E. P. Bicknell).

New York State. Not now definitely known to nest in our section.

CENTRAL PARK. Now very rare on migration, no record since 1910; September 24, 1908 (Griscom) to December 25, 1906 (Rogers). I cannot credit the report that it nested commonly in the Park in 1886.

BRONX REGION. A common winter resident; September 19, 1915 (L. N. Nichols) to April 4, 1914 (Hix).

New Jersey. Breeds in the northwestern section. The nest has been found near Newton (P. B. Philipp). Otherwise a more or less common winter resident, but reported in summer near Montclair (Howland).

ENGLEWOOD REGION. Common winter resident, October 10, 1915 (J. M. Johnson and Rogers) to May 18, 1913 (Griscom and others). Rare after the first week in April, and does not arrive in numbers until really cold weather.

RED-SHOULDERED HAWK (*Buteo lineatus*)

This Hawk is generally a common resident, and stands the approach of civilization better than any other except the Sparrow Hawk. It prefers the richer lowland woods to nest in. It is absent from the higher hillsides in New Jersey, where it is replaced by the Broad-winged Hawk, and in wilder sections in northern New Jersey and Long Island is replaced by the Red-tail. There is no better illustration of the way three related birds divide the available country between them, a division which is purely ecological and not faunal. Adults have reddish-brown underparts and a black tail with five to six narrow white bands. They are readily identifiable. Immature birds closely resemble immature Red-tails, but can sometimes be determined by the absence of all the characters given under that species. It should be remembered that large females are almost as large as small male Red-tails.

Long Island. Locally common resident, absent where the Red-tail occurs.

ORIENT. Probably a rare summer resident; uncommon transient and winter resident; August 16 to May 2.

MASTIC. No record.

LONG BEACH. No record.

New York State. Common resident, except near the City.

CENTRAL PARK. Now a rare transient, formerly more frequent; April 18, 1908 (Griscom) to April 20, 1913 (Anne A. Crolius); September 26, 1905 (Hix) to December 24, 1908 (Anne A. Crolius); one winter record 20 years ago (Rogers). *Buteos* are noted every fall flying over, but can rarely be identified. In recent years they have not lit in the Park.

BRONX REGION. A common winter resident, a few pairs still nesting.

New Jersey. Common resident in the lowlands of our area. Absent in summer and rare in winter in the hilly northwestern section.

ENGLEWOOD REGION. Common resident, increasing during its migrations.

BROAD-WINGED HAWK (*Buteo platypterus*)

The Broad-winged Hawk can unquestionably claim the dubious distinction of being the most misidentified of our local birds, and it is no exaggeration to state that ninety per cent of the entries in the note books of students regarding this species up to a few years ago were either unreliable or unsatisfactory. Those who know a *Buteo* by the cut of the wings and tail can, under favorable circumstances, identify this species positively. The adult has a large part of the under side of the wings *pure white* with a black tip. The tail has two to four *broad* light-colored bands, which show from below. The smaller size is often an aid, but the bird must not be identified by its size, its "broad wings," or the way it flaps its wings when soaring. Immature birds are apt to lose the color characters given, and are consequently less often identifiable. A bird seen at close range will sometimes have noticeable dark "mustaches." The greatest cause of confusion is the immature Red-shouldered Hawk, which does not possess the five to six distinct narrow tail-bars of the adult, and is consequently identified as a Broad-winged. The best way to make the acquaintance of the Broad-winged Hawk is to go to the hill region in New Jersey and study a pair

on their breeding grounds. They are remarkably tame and unsuspicious, and their call-note* or scream is sure to betray their whereabouts. It has been aptly likened to a Wood Pewee's note. Another way of describing it is to compare it to a steam whistle, which gradually "peeters out" as the supply of steam fails. Armed with this experience the student will stand a much better chance of correctly determining migrating birds.

Much false and unreliable information about the status of this species in our area has been published, and repeated by others who were not in a position to determine its inaccuracy. There is no foundation whatever for the statement that it is a permanent resident. Some two years ago Mr. W. deW. Miller, Mr. J. T. Nichols, several active members of the Linnæan Society, and the writer started carefully checking its status. Extended observation in every section of the area shows conclusively that the Broad-winged Hawk is a summer resident in favorable places. As a transient it is common only in the hill country of New Jersey, where great flights are occasionally noted, and elsewhere is uncommon or rare. Few birds are more regular in arriving in spring, and it is frequently reported from widely separated localities on the same day; the dates are between April 20 and 25, the last May 10 to May 20; the fall migration is from September 5 to October 23. As this species winters mainly in South America and does not reach southeastern Texas until the first week in April, it is as likely to occur in early March and November as a Wood Thrush, and it has a poorer claim to be called a permanent resident than the Baltimore Oriole, which has actually occurred in winter. Suffice it to state that I know of no specimens taken locally between October and late April, and none such can be found in the collections of Chapman, Dwight, Dutcher, Mearns, Braislin, Worthington, and others in the American Museum. The presence of the bird in winter apparently goes back to Fisher's "Hawks and

Owls of the United States," where in a tabular list of *stomachs* examined, one is cited as collected on January 20, 1890 at Huntington, Long Island. Whether this stomach came from a Broad-winged Hawk is strongly open to doubt. If it did, it would merely prove that this species had occurred once casually in winter. Old reports of March arrivals and all other winter records are *sight* records, made at a time when the books misled the student, and he had no appreciation of the importance of his observation. When we consider in addition the proved unreliability of most sight records of this species until recent years, it seems the best thing to reject all abnormal dates until such are definitely authenticated by specimens.

Long Island. Locally a fairly common summer resident on the higher parts of the north shore and the wilder parts of the south shore. Definite dates are defective. The few breeding birds apparently arrive late, and Long Island seems out of the main track of transients, at least in spring. Definite dates are May 10 to September 24, 1887 (Long Island City, specimen taken). The bird should certainly occur in late April and early October.

ORIENT. Rare summer resident on Gardiner's Island and Greenport (Latham). Mr. Latham's dates are March 10 to November 20; these must be regarded as problematical until authenticated by specimens (Griscom).

MASTIC. Uncommon summer resident. The *earliest arrival date in many years' observation is May 10, 1921.*

New York State. Generally a rare transient in our section. Perhaps still nesting near Ossining, as it did formerly (Fisher).

CENTRAL PARK. Very rare transient, not recorded in the last ten years, many of the earlier reports problematical. May 1, 1909 (Griscom) to May 20, 1911 (Anne A. Crolius); September 9, 1913 (Hix) to September 27, 1905 (Hix). There was a marked flight in the fall of 1905, and hundreds were seen overhead on September 23 (S. H. Chubb).

BRONX REGION. Rare transient; April 24, 1921 (Granger); September 17, 1919 (Granger); September 22, 1915 (L. N. Nichols); September 17, 1922 (Griscom).

New Jersey. A common summer resident in the hills, replacing the Red-shouldered Hawk of the lowlands. In the northwestern

sections this species and the Red-tail occur together. A common transient, often abundant in fall, over the hills inland, but much scarcer near the Hudson. The earliest fall arrival date is September 5 at Stag Lake, Sussex Co.

ENGLEWOOD REGION. Uncommon transient, April 20, 1913 (J. T. Nichols) to May 3, 1914 (Griscom, LaDow, N. F. Lenssen, and J. M. Johnson); September 23, 1908 (Griscom) to October 5, 1919 (Griscom and Rogers). A pair bred at Palisades Park until 1914 (Weber), when the locality was destroyed.

ROUGH-LEGGED HAWK (*Archibuteo lagopus sancti-johannis*)

In life the Rough-leg bears a close resemblance to the *Buteos*, but has slightly longer wings and a longer tail, which I have never seen spread fanwise. It is a heavy, sluggish bird, and occasional efforts at circling or soaring require a lot of wing flapping. The black axillar patches are a striking field-mark. Otherwise its normal plumage suggests a young Marsh Hawk, but the cut of the wings and tail is different, and it utterly lacks the lightness and grace of the Harrier. With us it is a regular winter visitor to the coast of Long Island and the larger river marshes, but is much rarer or unrecorded in the interior.

Long Island. Irregularly common winter visitant, present every year. October 18 to April 8, casually to May 3 and 7.

ORIENT. Uncommon winter visitant, November 10, 1910 to May 3, 1914 at East Marion.

MASTIC. Fairly common winter visitant, arriving as early as October 18, 1915.

LONG BEACH. Uncommon winter visitant, November 5, 1912 (Griscom) to March 31, 1912 (Griscom), casually to May 7, 1914 (E. P. Bicknell).

New York State. Generally a decidedly rare winter visitant.

CENTRAL PARK. Casual, October 31, 1914 (J. T. Nichols).

BRONX REGION. Rare winter visitant, November 21, 1914 (Hix) to April 4, 1914 (A. A. Saunders).

New Jersey. Rare or uncommon in the big marshes near the Hudson River; still rarer further inland, and I have no reports from the northwestern sections, but it should occur occasionally



PLATE III. CARDINAL

Courtesy of the National Association of Audubon Societies

on the larger marshes. Three records for Montclair (Howland); rare at Morristown (Thurber).

ENGLEWOOD REGION. Uncommon winter visitant, sometimes present all winter on the Overpeck Marshes, other years unrecorded. October 10, 1915 (J. M. Johnson and Rogers) to April 7, 1918 (J. M. Johnson).

GOLDEN EAGLE (*Aquila chrysaëtos*)

There is some evidence to show that in colonial times the Golden Eagle was less rare in the East than now, and it apparently bred in the Hudson Highlands. In our territory, however, it is purely casual. Only the most extraordinary luck would enable an observer to distinguish it in life from the Bald Eagle, as a *top view* would be essential. Immature birds could not possibly be told from an immature Bald Eagle.

Long Island. Three records, an old specimen from Canarsie; October 6, 1877; October 19, 1890.

New Jersey. Only two records, an adult female killed near Culver's Gap, Sussex County, November 23, 1918 (Miller, Auk, 1919, p. 293); another shot in the same locality September 22, 1922 (von Lengerke).

BALD EAGLE (*Haliaeetus leucocephalus*) Fig. 15

The experienced can recognize an Eagle at great distances by the enormous extent of the wings (often over seven feet) which is six or seven times the length of the tail. Country people, however, are likely to call any large bird flying at a great height an Eagle! These proportions are approached only by the Turkey Vulture, whose wings are much narrower, and whose flight and soaring characteristics are quite different. The Bald Eagle has a most irregular distribution in our area, which will be found in detail below. The bird nests very early; consequently its presence as a transient chiefly in late spring and early fall is hard to explain. Students can count on seeing it along the Palisades any winter just after a cold wave, when half a dozen or more birds can be seen sitting on ice cakes in the River during a short walk.



Fig. 15. Bald Eagle.

Group in Brooklyn Museum

Long Island. Locally common in summer in the wilder sections, occasional in winter; rare, however, at the western end of the island. So far as I know the nest has never been found. February 12 to September 30.

ORIENT. Uncommon visitant, occurring at any time of year.

MASTIC. Fairly common summer resident; may breed; occasionally noted in winter, and is perhaps a permanent resident.

LONG BEACH. Very rare, an adult found on a sandbar May 29, 1915 (Hix and L. N. Nichols); an immature, October 29, 1922 (Hix).

New York State. Rare transient on Staten Island; recent records are August 22, 1914 and September 24, 1911 (Cleaves). Regular and often common winter visitant on the Hudson River in the section of the Palisades from December to late March, often seen from the 125th Street Ferry. Formerly a permanent resident near Ossining (Fisher), but its breeding there now requires confirmation, though highly probable (Brandreth).

CENTRAL PARK. Casual; fall of 1866 (Woodruff and Paine); February 8, 1909 (Griscom).

BRONX REGION. Only recorded in winter, such birds undoubtedly wanderers from the Hudson River; February 17, 1912 (Griscom and Hix); February 23, 1920 (L. N. Nichols).

New Jersey. Fairly common winter visitant along the Hudson. Inland a rare or very rare transient, chiefly reported in May, late August and September. There are June records also, but these must not be regarded as indications of breeding. The bird is reported as present all summer on Greenwood Lake. This would indicate a breeding pair, which, however, might be actually nesting twenty or more miles away, as no bird covers a wider range of territory at this season. There is no definite evidence then that the Bald Eagle breeds in northern New Jersey. Transients in June may possibly be wanderers from more southern breeding grounds. No winter record inland.

ENGLEWOOD REGION. Fairly common winter resident on the Hudson, December 3, 1904 (W. H. Wiegmann) to March 16, 1912 (Griscom); very rare transient inland, only two records; May 2, 1915 (J. M. Johnson); May 11, 1921 (W. deW. Miller).

GYRFALCON (*Falco rusticolus gyrfalco*)

Gyrfalcons are primarily arctic birds. This and the next have occasionally straggled south in winter to the United States. Specimens of this race have been shot on Long Island in 1856 and 1877.

BLACK GYRFALCON (*Falco rusticolus obsoletus*)

Specimens have been shot on Long Island in 1875 and 1899. Another was shot in Westchester County in 1879.

DUCK HAWK (*Falco peregrinus anatum*)

The Duck Hawk or Peregrine is a permanent resident on the Palisades of the Hudson, at least two pairs nesting in our territory. These birds are not infrequently seen in various parts of New York City where they have learned that there is excellent pigeon hunting. On Long Island the bird occurs regularly as a transient along the outer beaches in May, September, and early October, but is casual at other seasons. It is exceedingly rare inland in Northern New Jersey, and is not reported from most localities.

Falcons can always be recognized by their pointed wings and long pointed tails. The Duck Hawk is readily recognizable by its size and its black "mustaches." The wing-beats are rapid and continuous, and its flight impresses one by its speed and power.

Long Island. Uncommon transient, common in the fall; May 12 to May 28, 1922, Jones Beach (Crosby, Griscom, Janvrin, J. M. Johnson); September 16 to October 28; one December record; an exceptionally early bird noted April 5, 1916 at Garden City (J. T. Nichols).

ORIENT. Casual, September 20; December 25, 1908; May 20.

MASTIC. Uncommon transient.

LONG BEACH. Regular in the fall, September 23, 1920 (Bicknell) to November 1, 1920 (Bicknell); one spring record May 15, 1919 (Bicknell); one winter record, February 3, 1922 (Bicknell).

New York State. Birds from the Palisades visit the City for pigeons at all times of the year. Reported as casual at Ossining (Fisher).

CENTRAL PARK. Likely to be observed at any time of the year. I have had a bird strike a Starling within 15 feet of me.

BRONX REGION. Not uncommon visitor at any time of the year.

New Jersey. Resident on the Palisades; a very rare transient or unrecorded elsewhere. One seen in the Plainfield Region, January 1, 1910 (Miller).

ENGLEWOOD REGION. Permanent resident on the Palisades. These birds hunt in New York City so exclusively that they are almost unknown inland.

PIGEON HAWK (*Falco columbarius*)

Next to the Broad-winged Hawk this dashing little Falcon is more often misidentified than any other species, and for some reason Sparrow Hawks are constantly "transmogrified" into the rarer bird. The adult male is bluish-gray above, white below, heavily streaked. It is so much smaller than a Duck Hawk that confusion here is scarcely excusable. The female and immature are brownish above, the tail with *several incomplete lighter bars*. The female Sparrow Hawk always has a bright reddish-brown tail with *many narrow black bars*. Size differences are of *no value*.

In our area the Pigeon Hawk is best known as a transient along the coast chiefly in September, when it is often common. Inland this condition is reversed; it is rare or uncommon in spring, and much rarer in fall. Contrary to what many believe and what is often stated in books, the bird is *casual between October 15 and April 15*. A sight record at this season is noteworthy, and should be authenticated with the greatest care. The great majority of such reports are here regarded as absolutely unreliable.

Long Island. Fairly common transient, especially in fall; April 24 to May 21; September 4 to October 24; casual later; specimens taken on Shelter Island, November 22, 1898 (W. W.

Worthington) and December 31, 1903 at Mt. Sinai (R. C. Murphy); seen at Garden City, November 23, 1919 (J. T. Nichols). Mr. Dutcher's Notes contain a record for February 14 for Suffolk County. Unfortunately this is the only one of his dates not supported by a specimen.

ORIENT. Rare transient, September 14 to May 11. (Mr. Latham apparently includes the record of February 14 cited above.—Griscom).

MASTIC. Fairly common fall transient, the latest date October 24, 1920; rare in spring, April 24, 1921.

LONG BEACH. Rare spring, regular fall transient; May 4, 1919 (Granger and Janvrin); September 5, 1910 (Hix and Rogers) to October 15, 1916 (Rogers), October 26, 1916 (Bicknell), and November 5, 1918 (Bicknell).

New York State. Reported as a fairly common transient at Ossining (Fisher). This is certainly not the case today near the City.

CENTRAL PARK. Uncommon spring transient, one or two birds seen almost every year, April 24, 1922 (Griscom) to May 6, 1901 (S. H. Chubb); very rare in the fall, September 24, 1913 (Hix) to October 10, 1917 (Hix).

BRONX REGION. Only two recent records; May 9, 1920 (L. N. Nichols); September 17, 1922 (Griscom).

New Jersey. An uncommon or rare spring transient, much rarer in the fall. At Stag Lake, Sussex County, Mr. Justus von Lengerke has shot specimens now in the Museum between September 23, 1916 and October 20, 1912. So few individuals pass through in spring that an observer who is out on Sundays only is more than likely to miss the bird. The greater number of records are between April 28 and May 6. The earliest arrival dates before me are April 13, 1919 near Elizabeth (Urner) and April 16, 1922 near Plainfield (Miller). The earliest of the very few fall records is September 4, 1921 near Elizabeth (Urner).

ENGLEWOOD REGION. Rare spring transient, April 17, 1904 (Isaac Bildersee) to May 18, 1919 (Griscom and W. T. Helmuth); only one satisfactory fall record, September 22 1918 (Hix).

SPARROW HAWK (*Falco sparverius*)

Wherever conditions are favorable the Sparrow Hawk is a common permanent resident, though its numbers are often greatly reduced in winter, when it is sometimes locally

absent. Even in New York City an occasional pair nests in a hole in the walls of some building, and helps in reducing the supply of English Sparrows. The bird does not nest on the outer beaches of Long Island as a general rule, and Mr. Latham regards it as a rare breeder in the Orient Region. Transients pass through our area chiefly in April and October. It seems useless to cite its status in greater detail. In all sections it cannot be overlooked throughout most of the year.

FISH HAWK (*Pandion haliaëtus carolinensis*)

The Fish Hawk still nests abundantly on Gardiner's Island, and also breeds on the northern coast of New Jersey just outside our limits. It is not known definitely to nest elsewhere in this territory at the present time. As a transient it is common on the coast of Long Island, but is now scarce in the Hudson River valley. Inland in New Jersey it is decidedly uncommon or rare, but is noted occasionally flying overhead almost everywhere. The great extent of wing, the white head and underparts make this fine species recognizable at a great distance.

Long Island. Common transient; abundant summer resident on Gardiner's Island; occasional in summer elsewhere. March 18 to October 21 (November 17).

ORIENT. Common summer resident; March 18, 1905 to October 22, 1915; average March 23 to October 10.

MASTIC. Common transient, uncommon in summer, may breed; noted November 1, 1920 (Laidlaw Williams).

LONG BEACH. Common transient; March 30, 1919 (Bicknell) to June 8, 1922 (Bicknell); July 11, 1918 and August 4, 1917 (Bicknell) to October 30, 1919 (Bicknell and Crosby).

New York State. Not now known as a nesting species. Formerly bred near Ossining (Fisher), on Staten Island, and in what is now Bronx Park. Apparently a rare or uncommon transient.

CENTRAL PARK. Seen almost every year flying overhead during migrations. Once or twice noted fishing in the Lake. Less often seen now than formerly. April 5, 1913 (Anne A. Crolius) to May 27, 1920 (Griscom); September 11, 1922 (Griscom) to October 18, 1922 (Griscom).

BRONX REGION. Bred formerly. Now a rare transient, April 11, 1919 (L. N. Nichols) to May 3, 1920 (L. N. Nichols); September 13, 1921 (Griscom).

New Jersey. Uncommon transient near the Hudson River, decreasing northwestward. Mr. Urner's dates near Elizabeth are April 2, 1922 to May 20, 1917; August 10, 1921 to October 13, 1918. These are excellently representative. Even as far inland as Newton, Sussex County, it has been noted as late as October 12, 1914 (Hix). Casual December 25, 1918 near Morristown (R. C. Caskey).

ENGLEWOOD REGION. Uncommon but regular transient; March 27, 1921 (Griscom and Janvrin) to May 25, 1890 (F. M. Chapman); no good fall arrival date; latest October 20, 1907 (Hix and Rogers).

BARN OWL (*Aluco pratincola*) Fig. 16

The Barn Owl is a rare resident in our area, but is in all probability commoner than the scant records would indicate, as no Owl is so nocturnal, so generally silent, and more easily overlooked. Its chosen haunts are often almost impossible of investigation. If the student could search church steeples, belfries, dove-cots in old farm buildings, and barns, as zealously as he did conifer groves and hollows in trees, he would undoubtedly see more Barn Owls. The bird rarely nests in hollow trees in our area, and it is exceptional to find it roosting in conifers. It is at the northern limit of its range here, but seems to wander around to a certain extent after the breeding season, as it turns up in the most unexpected places, either north of its known breeding range, or at a place like Montauk Point, where its nesting is inconceivable. The very light coloration, long legs, and prominent facial disks, prevent the Barn Owl from being confused with any other species. It is too often shot on sight as a curiosity, and the evidence before me would show that it is less common than formerly.



Photograph by H. E. Anthony

Fig. 16. Barn Owl.

Long Island. Rare permanent resident. No definite nesting pair located at the present time, and no breeding record except at Flushing, and more recently at Jamaica.

ORIENT. Three records, March, 1889 and September 30, 1898 (Gardiner's Island); October 12, 1898 (East Marion).

New York State. Still resident on Staten Island, but the available evidence shows that only wanderers occur further north. One seen on a housetop in Fulton Street, New York City, April 5, 1878 by J. B. Bailey. One shot "just outside the City" April 13,

1878 according to Mearns. One at Ossining, January, 1873 (A. K. Fisher). No other records.

New Jersey. Has been found nesting in the past near Plainfield (Miller) and Summit (Holmes), but no effort has been made recently to determine whether the bird still occurs. Old records from Chatham and Whippany, Morris County. Mr. Uner has more recently found the Barn Owl resident near Elizabeth. It undoubtedly breeds, but the nest has not been discovered.

ENGLEWOOD REGION. Recorded on several occasions by Dr. Chapman. Subsequently found as a resident in what are known as the "Phelps Ruins" west of Leonia, where it undoubtedly bred, and observed there for many years. Not found there since 1914.

LONG-EARED OWL (*Asio wilsonianus*)

This fine Owl is an uncommon and local resident, but is a common winter visitor to nearly all parts of the region, and, as in the winter of 1921-22, might almost be termed abundant for an Owl. It is most likely to be found in numbers in February, after the first severe mid-winter snow storm, when it will appear in various sections at the same time. More rarely migrants are reported in November. Winter visitors are seldom observed after March, but there are a few late April dates. The conifer groves of the Moravian Cemetery on Staten Island are the nearest good place to find this owl, which is unmistakable when seen perched. Flying, however, the long wings make it look as large as a Barred Owl.

Long Island. Rare resident; uncommon winter visitant, sometimes common in February, December 11 to April 16.

ORIENT. A winter visitant and rare summer resident at Orient.

MASTIC. Rare resident.

New York State. Regular winter visitant on Staten Island, rare elsewhere near the City. Formerly a common permanent resident at Ossining (Fisher). Its present status in northern Westchester County unknown.

CENTRAL PARK. Casual; December 6, 1901 (Rogers); November 10, 1904 (S. H. Chubb); February 19, 1905 (C. G. Abbott); April 24, 1922 (Janvrin and others).

BRONX REGION. Now a rare winter visitant, only one recent record, November 19, 1919 (L. N. Nichols).

New Jersey. Apparently a rare or uncommon resident throughout the wilder sections of the area, its numbers greatly increased in winter. Recorded April 30, 1922 near Elizabeth (Urner).

ENGLEWOOD REGION. Regular winter resident, no definite nesting evidence; (October) November 15 (Weber) to April 28, 1918 (J. M. Johnson).

SHORT-EARED OWL (*Asio flammeus*)

The Short-eared Owl is a common transient and regular winter resident on the coast of Long Island, but is much rarer inland. It nests much more commonly than has been supposed. On rare occasions large flocks are reported. It is preëminently a bird of the outer beaches and open marshes, and is often diurnal. The flight is very peculiar, suggesting that of a Nighthawk in the long sweep downward of the wing, and the irregularity of the wing-strokes. The breadth of the wings, the round head, and the apparent absence of a neck completes a picture which is striking at a relatively great distance.

Long Island. Common winter resident, uncommon as a breeder. The nest has been found on Shelter Island, but there is little doubt that it nests commonly on Gardiner's Island, and the marshes near Long Beach, Jones Beach, Mastic, and probably elsewhere. Migrants arrive in October and depart the first week in April. Birds seen in late May and June are almost unquestionably breeding.

ORIENT. Rare resident and winter visitant.

MASTIC. Uncommon summer resident, breeds; more common in the fall.

LONG BEACH. Uncommon permanent resident. A pair or two undoubtedly nest in the marshes back of the beach, as the bird is recorded all summer.

New York State. Rapidly decreasing with the draining of the marshes, but still occurring regularly on the south shore of Staten Island. Regarded as casual near Ossining (Fisher).

BRONX REGION. Now of rare occurrence, only two recent records, November 19, 1917 (L. N. Nichols) and November 24, 1919 (L. N. Nichols).



Painting by L. A. Fuertes

Fig. 17. Barred Owl.

New Jersey. Known chiefly as a rare transient to the larger open marshes; casual or unknown elsewhere. It has recently been found nesting on the Newark Bay Marshes by Mr. Chas. A. Urner, who found young birds in 1921 and the nest in 1922.

ENGLEWOOD REGION. Rare transient and winter resident, October 27, 1909 (Griscom) to April 7, 1918 (J. M. Johnson).

BARRED OWL (*Strix varia*) Fig. 17

Of all the larger birds of prey the Barred Owl is unquestionably our commonest species, and forms a well-known partnership with the Red-shouldered Hawk in the alluvial woodlands of our area. In the coastal plain, or the wilder country inhabited by the Great Horned Owl, it is rare or absent. Its ability to survive in comparatively settled country is astonishing, when one considers its size and its constant hooting, which will often carry a mile or more. Its wariness is so great that a pair can inhabit a patch of woodland for years without even being seen. Occasionally a tame bird will be found roosting in some conifer during the winter months, and the student can then determine what a Barred Owl really looks like. He will be impressed with the large, liquid, blue-black eyes, which have a much milder expression than the fierce yellow ones of our other species. The hooting may be described as baritone in quality, and the *whoos* or *whaas* are usually in *couplets*. It can be perfectly imitated by the human voice except in power, and the Owl is likely to talk back. Economically it is most useful, and the only blot on its escutcheon is its cannibalism, all the smaller Owls forming an acceptable addition to its larder.

Long Island. Rare and local resident.

ORIENT. Very rare winter visitant.

MASTIC. No record.

New York State. Rare or extirpated near New York City. Formerly common, and probably still surviving on Staten Island and in northern Westchester County.

CENTRAL PARK. No records under modern conditions.

BRONX REGION. Perhaps a pair or two are still resident, but recorded recently in winter only.

New Jersey. A generally common resident throughout.

ENGLEWOOD REGION. A few resident pairs still remain, but it is distinctly less common than formerly.

GREAT GRAY OWL (*Scotiaptex nebulosa*)

An accidental visitant from the north. There is one record for Long Island, a specimen taken at Mt. Sinai by Mr. A. H. Helme, who has mislaid the date. There is an unsatisfactory record for New Jersey. Thurber (1887) records one shot "near Mendham a number of years ago" by the father of a Mr. Fairchild, who furnished him several records.

SAW-WHET OWL (*Cryptoglaux acadica*)

This cunning little Owl is a regular and often common winter visitant. It is easily overlooked, and is never seen by students who do not make a special search for it, except by happy accidents, which are normally years apart. Its supposed rarity may confidently be stated to be a myth. It is often extraordinarily tame, and with a little care can be caught in the hand.

Long Island. Fairly common winter visitant, October 10 to March 30. One breeding record, Miller Place, 1879 (A. H. Helme).

ORIENT. Rare winter visitant, October 10 to March 1.

New York State. Not uncommon winter visitant, but scarce near the City. A late date is April 28, 1909 on Staten Island (C. G. Abbott). Giraud records a bird shot in St. Paul's church-yard, New York City, in June, 1842.

CENTRAL PARK. Casual in winter; January 4 to 8, 1909 (Anne A. Crolius); November 5 to 11, 1918 (Albert Pinkus). This latter bird was caught alive the first day, brought to the Museum for identification, and then replaced on its perch.

BRONX REGION. Only one recent record, October, 1921 (Lee S. Crandall). Undoubtedly overlooked.

New Jersey. Regular and sometimes common winter visitant. Most often seen in mid-winter, but flights sometimes occur taking

the bird further southward in numbers. On such occasions more are recorded in November, December, and March.

ENGLEWOOD REGION. Uncommon winter visitant, November 23, 1914 (Bowdish) to April 16, 1922 (Griscom and J. M. Johnson).

SCREECH OWL (*Otus asio*)

The Screech Owl is a common permanent resident in all but the wildest sections of our area and the sea beaches, and in fact appears to prefer the vicinity of man, for whose presence and activities it has profound indifference. It can still be found in Central Park and the Bronx. Its quavering tremulo is particularly associated with August, and is often the only indication of its presence. To see this Owl is more difficult, and few people have the necessary patience or enthusiasm to be constantly investigating likely holes in trees, when success usually means a bite or a scratching. In May, when the young are partly grown, there is often no room in the family apartment for the father Owl, who is then forced to roost in a nearby tree, where a sharp eye will sometimes detect him, especially as he will often be the center of an abusive circle of small birds, to which he pays not the slightest attention. In July the young Owls will emerge at dusk some evening and sit in a solemn fuzzy row on a tree-limb. Your presence is sharply resented, and one or both of the parents will fly around your head with a loud snapping of the bill. [It seems useless to cite its status in greater detail.

GREAT HORNED OWL (*Bubo virginianus*)

Our largest Owl prefers deep swamps or big areas of un lumbered woodland, and as a result is no longer common in our area. Fierce, wild and untamable, it cannot or will not tolerate civilization, and retreats before it. As it does serious damage to game and poultry, it is ruthlessly shot when detected, and this undoubtedly accounts for its scarcity. Its notes are in keeping with its character and size. If the

Barred Owl is a baritone, the Horned Owl is a basso profundo. The hoots are more even in tone, less regular in interval, but are often heard in triplets. It cannot be exactly imitated, as the pitch is below the normal range of the human voice, and any loudness of delivery would be out of the question. More rarely a blood-curdling scream is given, sounding like a woman being murdered, which makes the camper awake trembling and sweating, and once heard is never forgotten. On rare occasions there are well-marked flights of Horned Owls, chiefly in December and early January, when the student may discover a bird in country from which the species has long since vanished as a resident. Otherwise, seeing one requires a special trip to wild country in early March in the hope of discovering a nest, when the trees are bare. Careful long range inspection of old nests of Crows, Hawks, or Squirrels may reveal a round head and ears projecting above the rim. In the majority of cases, however, the Owl will see you first and will melt into the woods on silent wing.

Long Island. Locally common resident, chiefly in the wilder parts of the South Shore.

ORIENT. Recorded in December.

MASTIC. Fairly common resident.

New York State. Perhaps still surviving in northern Westchester County, otherwise extinct as a resident. A very rare visitor in December.

CENTRAL PARK. Casual visitor; one shot by a keeper in 1900 or 1901 (Hix); another shot late in 1904 (R. E. Stackpole); one flushed from a grape vine tangle in the Ramble, December 10, 1908 (L. and A. Griscom).

BRONX REGION. Several birds have been shot in the Zoological Garden by the keepers. One seen there April 23, 1916 (L. N. Nichols). This bird was checked up by the Park authorities, who reported no captive birds missing.

New Jersey. Now extirpated, or nearly so, near New York City. A pair still survives near Mt. Bethel. It has been seen recently near Montclair in July (Howland) and may breed there. Seen also in June near Wyanoike (Howland). There is plenty of



PLATE IV. SCARLET TANAGER

Courtesy of the National Association of Audubon Societies



suitable wild country there. Undoubtedly nesting in the wilder sections northward and northwestward, but I have no data.

ENGLEWOOD REGION. Occurred formerly (F. M. Chapman); long since extirpated.

ARCTIC HORNED OWL (*Bubo virginianus subarcticus*)

An accidental visitant from the north. A bird was shot in Bronx Park on February 15, 1919 and brought to Mr. Lee S. Crandall, who saw at once that it was not a typical specimen and forwarded it to the American Museum. It is a female, and must be referred to this race. This is the first record for New York State. It is of interest to note that the same subspecies was obtained in Massachusetts the same winter, as recorded by Glover M. Allen.

SNOWY OWL (*Nyctea nyctea*) Fig. 18

A rare and irregular winter visitant, often unrecorded for long periods. Flights have occurred in 1876-77, 1882-83, 1889-90, 1901-02, and 1905-06. Between flights straggling individuals are occasionally reported. This Owl has much the same tastes as the Short-eared Owl, preferring the outer beaches and salt meadows of Long Island. Near New York City and inland in New Jersey it is a very rare bird. Its conspicuous size and color, and diurnal habits make it difficult to overlook. It is not without significance, therefore, that the great majority of the active field ornithologists of the region have never seen the bird alive in this vicinity.

Long Island. Rare and irregular winter visitant, October 17 to April 14.

ORIENT. Rare and irregular winter visitant, November 1, 1909 to February 15, 1909.

MASTIC. Rare and irregular winter visitant.

LONG BEACH. One record; December 26, 1921 (Charles Johnston) to January 20, 1922 (Bicknell).

New York State. Casual at Ossining (Fisher). One shot on Staten Island, January 10, 1914, and brought to the Staten Island Museum.

Long Island. Common summer resident; May 6 to October 12, 1915 Prospect Park, Brooklyn (Fleischer and J. M. Johnson); casually to October 23 and November 2.

ORIENT. Uncommon summer resident, May 6, 1914 to October 2, 1915; average May 12 to September 22.

MASTIC. Fairly common summer resident.

LONG BEACH. Casual on migration; May 25, 1919 (Griscom and Janvrin); August 21, 1919 (Bicknell); October 5, 1919 (Crosby).

New York State. Recorded May 4 to October 31 at Ossining (Fisher), which are extreme dates.

CENTRAL PARK. Formerly a summer resident, not found breeding since 1913; now an uncommon but regular transient. May 5, 1912 (Anne A. Crolius), May 11, 1911 ((Anne A. Crolius) to June; August 31, 1910 (Hix) to October 3, 1910 (Hix).

BRONX REGION. Common summer resident, May 12, 1912 (Hix) to October 12, 1911 (Rogers and Wiegmann).

New Jersey. Common summer resident throughout.

ENGLEWOOD REGION. Common summer resident, May 12, 1912 (Griscom) to October 11, 1915 (Weber).

BLACK-BILLED CUCKOO (*Coccyzus erythrophthalmus*)

While this species could certainly be called a common summer resident, it is slightly less numerous than the Yellow-billed Cuckoo in most sections. It often arrives a little later.

Long Island. Common summer resident, May 3 to October 11, casually to November 13.

ORIENT. Uncommon summer resident, May 12, 1905 to September 26, 1915; average May 18 to September 20.

MASTIC. Uncommon summer resident, noted casually as late as November 4, 1917.

LONG BEACH. Casual during migration, six records; August 13, 1914 (Bicknell) to September 9, 1920 (Bicknell).

New York State. May 3 to October 7 are the extreme dates at Ossining (Fisher).

CENTRAL PARK. A summer resident up to 1904; now an uncommon transient; May 9, 1900 (Chubb) to May 22, 1920 (Griscom), which was its *arrival* date that year; August 20, 1911 (Hix) to September 27, 1905 (Hix).

BRONX REGION. Uncommon summer resident, May 14, 1890 (Dwight) to October 7, 1915 (Hix).

New Jersey. Common summer resident throughout.

ENGLEWOOD REGION. Perhaps on the whole less common than the Yellow-billed Cuckoo; May 7, 1886 (Chapman) to September 27, 1917 (Weber).

BELTED KINGFISHER (*Ceryle alcyon*)

The loud rattle of the Kingfisher can be heard throughout our territory during its migrations, and wherever favorable conditions prevail a pair can be found nesting. The number of pairs in any particular locality will, however, be comparatively few, as each lays claim to a large preserve, and will not tolerate a rival. Its arrival depends upon the opening of the streams and waterways, and consequently is earlier on the coast than inland. The same factor delimits its lingering in the fall, and there are numerous winter records for every part of our area. It is very exceptional, however, for an individual to remain *throughout the winter* in a given locality, and Kingfishers are rarely reported after the middle of January.

Long Island. Common summer, rare permanent resident; March 8 to November 13, individuals frequently lingering into January.

ORIENT. Rare resident, common summer resident; March 8, 1905 (Mrs. Frank D. Smith) to November 15, 1917.

MASTIC. Fairly common summer resident.

LONG BEACH. Occasional throughout the summer months, during fishing excursions from the adjacent mainland; March 28, 1918 (Bicknell) to October 31, 1918 (Bicknell).

New York State. Generally a common summer resident, but rare at this season near the city.

CENTRAL PARK. Fairly common transient; March 27, 1913 (LaDow) to May 28, 1910 (Griscom); August 3, 1913 (Hix) to October 21, 1907 (Griscom).

BRONX REGION. Now a rare summer resident, common on migration; several winter records; March 19, 1912 (Griscom) to December 28, 1908 (Griscom).

Long Island. Common summer resident; May 6 to October 12, 1915 Prospect Park, Brooklyn (Fleischer and J. M. Johnson); casually to October 23 and November 2.

ORIENT. Uncommon summer resident, May 6, 1914 to October 2, 1915; average May 12 to September 22.

MASTIC. Fairly common summer resident.

LONG BEACH. Casual on migration; May 25, 1919 (Griscom and Janvrin); August 21, 1919 (Bicknell); October 5, 1919 (Crosby).

New York State. Recorded May 4 to October 31 at Ossining (Fisher), which are extreme dates.

CENTRAL PARK. Formerly a summer resident, not found breeding since 1913; now an uncommon but regular transient. May 5, 1912 (Anne A. Crolius), May 11, 1911 ((Anne A. Crolius) to June; August 31, 1910 (Hix) to October 3, 1910 (Hix).

BRONX REGION. Common summer resident, May 12, 1912 (Hix) to October 12, 1911 (Rogers and Wiegmann).

New Jersey. Common summer resident throughout.

ENGLEWOOD REGION. Common summer resident, May 12, 1912 (Griscom) to October 11, 1915 (Weber).

BLACK-BILLED CUCKOO (*Coccyzus erythrophthalmus*)

While this species could certainly be called a common summer resident, it is slightly less numerous than the Yellow-billed Cuckoo in most sections. It often arrives a little later.

Long Island. Common summer resident, May 3 to October 11, casually to November 13.

ORIENT. Uncommon summer resident, May 12, 1905 to September 26, 1915; average May 18 to September 20.

MASTIC. Uncommon summer resident, noted casually as late as November 4, 1917.

LONG BEACH. Casual during migration, six records; August 13, 1914 (Bicknell) to September 9, 1920 (Bicknell).

New York State. May 3 to October 7 are the extreme dates at Ossining (Fisher).

CENTRAL PARK. A summer resident up to 1904; now an uncommon transient; May 9, 1900 (Chubb) to May 22, 1920 (Griscom), which was its *arrival* date that year; August 20, 1911 (Hix) to September 27, 1905 (Hix).

BRONX REGION. Uncommon summer resident, May 14, 1890 (Dwight) to October 7, 1915 (Hix).

New Jersey. Common summer resident throughout.

ENGLEWOOD REGION. Perhaps on the whole less common than the Yellow-billed Cuckoo; May 7, 1886 (Chapman) to September 27, 1917 (Weber).

BELTED KINGFISHER (*Ceryle alcyon*)

The loud rattle of the Kingfisher can be heard throughout our territory during its migrations, and wherever favorable conditions prevail a pair can be found nesting. The number of pairs in any particular locality will, however, be comparatively few, as each lays claim to a large preserve, and will not tolerate a rival. Its arrival depends upon the opening of the streams and waterways, and consequently is earlier on the coast than inland. The same factor delimits its lingering in the fall, and there are numerous winter records for every part of our area. It is very exceptional, however, for an individual to remain *throughout the winter* in a given locality, and Kingfishers are rarely reported after the middle of January.

Long Island. Common summer, rare permanent resident; March 8 to November 13, individuals frequently lingering into January.

ORIENT. Rare resident, common summer resident; March 8, 1905 (Mrs. Frank D. Smith) to November 15, 1917.

MASTIC. Fairly common summer resident.

LONG BEACH. Occasional throughout the summer months, during fishing excursions from the adjacent mainland; March 28, 1918 (Bicknell) to October 31, 1918 (Bicknell).

New York State. Generally a common summer resident, but rare at this season near the city.

CENTRAL PARK. Fairly common transient; March 27, 1913 (LaDow) to May 28, 1910 (Griscom); August 3, 1913 (Hix) to October 21, 1907 (Griscom).

BRONX REGION. Now a rare summer resident, common on migration; several winter records; March 19, 1912 (Griscom) to December 28, 1908 (Griscom).



Photograph by Mary Cynthia Dickerson

Fig. 19. Downy Woodpecker

New Jersey. Common summer resident throughout, more numerous on migration, occasional in winter.

ENGLEWOOD REGION. Common transient, occasional in winter; March 16, 1919 (Bowdish) to May 18, 1913 (J. T. Nichols); August 27, 1922 (Griscom and LaDow) to November 7, 1915 (Rogers).

HAIRY WOODPECKER (*Dryobates villosus*)

A fairly common resident in all wooded sections, but rare or absent in cultivated districts. Were it not for stations such as Central Park and Long Beach, there would be little or no evidence to show that the bird was at all migratory. It is a larger edition of the Downy, but the absolute size is not so good a character as the bill, which is heavier and obviously over an inch long. The notes are louder, heavier, and wilder, and the rattle does *not slide down the scale* as the Downy's does.

ORIENT. Probably a rare summer resident in Southold (Mrs. Frank D. Smith); elsewhere only an irregular visitant, August 8 to April 2.

CENTRAL PARK. Very rare transient; has wintered; September 30, 1905 (Hix) to October 16, 1904 (Hix); wintering birds have remained as late as May 20, 1919 (Granger and Griscom), but there is no evidence of a spring migration. Most of the records are in the first half of October. No November or March records refer positively to transients.

DOWNY WOODPECKER (*Dryobates pubescens medianus*) Fig. 19

One of our most familiar and best known residents, the little Downy still occurs in Central Park, and is common everywhere except in the immediate vicinity of the ocean. There is often an appreciable migration in October.

LONG BEACH. Casual on migration; October 27, 1912 (Griscom).

CENTRAL PARK. About two resident pairs still linger; transients are recorded October 6, 1910 (Griscom) to October 30, 1911 (Griscom).

RED-COCKADED WOODPECKER (*Dryobates borealis*)

Accidental visitant from the southern States. A specimen in the Lawrence Collection was shot near Hoboken, N. J., sometime before 1866.

ARCTIC THREE-TOED WOODPECKER (*Picoides arcticus*)

Accidental visitant from the North. Specimens were taken at Bridgehampton and Sag Harbor, Long Island, during the winter of 1886-87.

YELLOW-BELLIED SAPSUCKER (*Sphyrapicus varius*)

The Sapsucker is a generally uncommon spring and common fall transient in our woodlands, but is scarcer near the seacoast. Its numbers vary considerably from year to year. Some springs it is decidedly rare; at times it is abundant in the fall. Occasional individuals linger far into the winter, such occurrences having little or nothing to do with the severity of the season. It is generally absolutely silent, and as a result is easily overlooked, especially in spring. Its medium size and conspicuous white wing-stripe readily identify it.

Long Island. Uncommon spring, common fall transient; April 1 to May 21; September 14 to October 23 and exceptionally to December 27; also recorded March 3, a date hard to allocate properly.

ORIENT. Not common transient, recorded in winter; April 1, 1917 (Mabel R. Wiggins) to May 21, 1917 (Mabel R. Wiggins); average arrival April 16; September 14, 1914 to October 23, 1913 (Mrs. Frank D. Smith); average arrival September 20.

MASTIC. Fairly common transient.

LONG BEACH. Casual transient; April 17, 1918; October 1, 1918 to October 13, 1919 (all by Bicknell).

New York State.

CENTRAL PARK. Regular spring and fall transient, often common; March 24, 1914 (Hix) to May 15, 1914 (Griscom); September 19, 1914 (Hix) to October 24, 1907 (Griscom); casual July 1, 1909 (Anne A. Crolius).

BRONX REGION. Rather common transient; several old winter records at Riverdale (Bicknell); April 1, 1917 (Granger) to May 6, 1917 (Janvrin); September 26, 1914 (Hix) to November.

New Jersey. Uncommon spring, common fall transient, occasional in winter. Recorded May 13, 1917 near Plainfield (Rogers).

ENGLEWOOD REGION. Regular transient, often rare or uncommon in spring; April 4, 1912 (Weber) to May 6, 1888 (Chapman); September 25, 1887 (Chapman) through October, and occasionally to the end of December; an exceptionally early bird noted September 9, 1905 (Hix and Wiegmann).

NORTHERN PILEATED WOODPECKER (*Phlæotomus pileatus abieticola*)

This splendid bird is associated in everyone's mind with the primeval wilderness, and is pictured as vanishing at the approach of man. This was undoubtedly the case. The Pileated Woodpecker was formerly generally distributed in the northeast, but fifty years ago was virtually extinct in Massachusetts, Connecticut, and the Hudson River Valley. The last specimen in northern New Jersey was taken about 1880 near Mountville, Morris County, and the last bird seen in southern New Jersey was in 1908. Throughout this area it has been regarded as a rare or accidental straggler. There is some evidence, however, to show that in recent years the bird has tended to reestablish itself in old localities, and to become reconciled to some contact with civilization. Such evidence exists in Central New York, and the Catskills, and it has reappeared in western Massachusetts and Connecticut. The discovery by Mr. W. DeW. Miller that it is a fairly common resident near Newfoundland, Passaic County, and Culver's Gap, Sussex County, is a source of gratification to all local ornithologists. Between these two points is some of the wildest and least known country in New Jersey, and it would not be surprising if it proved to be of wider distribution.

No diurnal land bird is more easily overlooked than the Pileated Woodpecker, which is unmistakable when seen at all

well. In fact, the best way of determining its presence is often the great *square* holes in the trees, and the long strips of bark torn from the trunk. The noise of its hammering sounds like the blows of an ax. In spring it may be detected by its calls, which resemble those of the Flicker, but are readily distinguishable on the same principle as the Hairy's from the Downy's. On the wing the bird looks as big as a Crow; the white patches are quite conspicuous, and the flight, if at all protracted, usually lacks the undulations of the other Woodpeckers.

Long Island. Probably a resident formerly. Long since extirpated, the last specimen taken in 1879.

New Jersey. Resident near Greenwood Lake, Newfoundland and Culver's Gap.

ENGLEWOOD REGION. Dr. Chapman has recorded a specimen taken on the Palisades in September 1885 by a Mr. Jacob Ulrich. He informs me that there is now some doubt as to the authenticity of this specimen. The species should be expunged from the list.

RED-HEADED WOODPECKER (*Melanerpes erythrocephalus*)

This beautiful Woodpecker is without any doubt the most erratic of our local birds, its distribution and status defying logical interpretation. In every section it can be counted upon to do something surprising and unexpected. As a general summary it may be stated that it is a rare transient, irregularly nesting and wintering locally. In any given locality, however, its status may change from year to year, from a permanent resident to total absence. No bird violates to a greater degree the rule that breeding birds tend to return to their old home. Such failures to reappear cannot be explained in the usual way with this species, nor can any habitat preferences be assigned to account for its local distribution in summer. Its migrations are equally remarkable. In any section where it is not breeding or wintering it is a rare and irregular transient. What I should call the normal migration

period is May and again in September, when flights of immature birds are occasionally recorded. Some years, however, it will not appear at all; in others it will appear in March and November. Almost every possible combination of these various possibilities has occurred.

Long Island. Rare and irregular as a transient, sometimes wintering, very rarely nesting. Bred with some regularity at Astoria in the early 'eighties, a locality long since destroyed. A pair nested in 1896 and 1897 at Flushing (Griscom). Since then I have no record of a pair nesting two years consecutively anywhere on the Island. Transients may be expected from March 21 to May 17, and from September 3 to November 28.

ORIENT. Rare summer resident at East Marion and Southold; otherwise a rare and irregular visitant from July to May.

MASTIC. Uncommon transient, rare in winter.

LONG BEACH. Casual, five records; May 10, 1918 (Bicknell); August 30, 1921 (Bicknell) to September 25, 1919 (Bicknell).

New York State. Chiefly a rare transient; likely to breed or winter anywhere, but rarely and irregularly.

CENTRAL PARK. Decidedly rare transient; March 24, 1914 (Hix) to March 31, 1910 (Anne A. Crolius); May 9, 1910 (Griscom) to May 15, 1914 (Griscom); September 19, 1914 (Hix) to October 24, 1907 (Griscom).

BRONX REGION. Rare and erratic; a big flight at Riverdale from September 1881 to May 1882 (Bicknell); bred at Riverdale in 1917 and 1921 (Griscom); apparently a rare resident in the eastern sections (L. N. Nichols); no signs of transients in recent years.

New Jersey. A rare transient or irregular summer resident according to locality, but breeds here and there throughout our area; rarely wintering. For years most plentiful in the Passaic and Dead River valleys, but at the moment of writing greatly decreased there. It seems useless to cite breeding localities, as the bird may fail to reappear next season, or may appear somewhere else.

ENGLEWOOD REGION. Rare and irregular transient; February 6, 1915 (J. T. Nichols) to March 25, 1911 (Griscom); April 16, 1921 (Bowdish) to May 23, 1918 (L. N. Nichols); September 14 to September 21, 1886 (Chapman); October 31 to

November 26, 1914 (J. T. Nichols) and December 3, 1910 (Hix). A pair bred on the Englewood Golf Club grounds in 1919 and 1920 (Chapman); also several pairs in 1919 on a golf club grounds near Tenaflly (Chapman). Both localities are well known and unchanged for years.

RED-BELLIED WOODPECKER (*Centurus carolinus*)

In Giraud's day this handsome and noisy Woodpecker was apparently a "not very abundant" resident on Long Island, but has long since deserted this region, and is now an accidental visitant from the South. There are three specimens from Long Island, the last taken in 1895. The only record for our area in New Jersey is a specimen taken at Newton, November 16, 1889. The writer saw an adult male in Central Park on April 30 and May 1, 1909. He was thoroughly familiar with the species in life previously, and discovered the bird by recognizing its characteristic call. On the first day especially it was observed at leisure.

NORTHERN FLICKER (*Colaptes auratus luteus*)

The Flicker is an abundant and well-known summer resident. It winters regularly on Long Island, but more rarely inland. The average spring arrival is March 15 to 20, the fall departure during November.

Long Island. Abundant summer resident, regular but uncommon in winter; March 14 to November 29.

ORIENT. Formerly abundant summer resident, now uncommon; frequent in winter.

MASTIC. Common summer resident, uncommon in winter.

LONG BEACH. Chiefly a transient but recorded throughout the year except June and early July; scarcer than formerly and no recent winter records; March 24, 1921 (Bicknell) to May 26, 1918 (J. M. Johnson); July 20 to August 18, 1921 (Bicknell); September 2, 1920 (Bicknell) to December 2, 1917 (Griscom).

New York State.

CENTRAL PARK. Common transient, a few remaining to breed; March 3, 1901 (Chubb) the earliest spring arrival

date; rare in the fall after October; south-bound transients in numbers as early as September 21, 1922 (Griscom).

BRONX REGION. A common summer resident, rare in winter; February 28, 1909 (Griscom) to December.

New Jersey. A common summer resident throughout; absent in winter in the extreme northern and western sections, rare at lower altitudes elsewhere.

ENGLEWOOD REGION. Common summer resident, rare in winter; March 9, 1922 (Griscom) to December.

WHIPPOORWILL (*Antrostomus vociferus*)

The distribution of the Whippoorwill in our area is almost the same as that of the Broad-winged Hawk. It is abundant on the coastal plain of Long Island, and generally distributed in the hill regions inland, where it is preëminently a bird of dry woodlands. As strictly nocturnal as any of our birds and averse to civilization, it has disappeared from the immediate vicinity of the City, and is seen but seldom. Were it not for its unmistakable and frequent calling, even residents near its breeding grounds might remain totally unaware of its presence. Perhaps the nearest place where the Whippoorwill breeds near the City is the hill region near Mt. Bethel. Where it does not breed, it is known only as a rare migrant; an occasional bird will be flushed in dense cover in the woods, or one will be spied sleeping lengthwise on a limb. Under such circumstances the generally brown color, the conspicuous bristles about the bill, and the absence of white wing-spots, are some of the characters which distinguish it from a Nighthawk. It arrives with great regularity the last week in April, and a few birds linger until the first week in October.

Long Island. Common summer resident, April 16 to October 6.

ORIENT. Uncommon summer resident at East Marion; uncommon transient elsewhere; April 28, 1912 to October 2, 1914.

MASTIC. Common summer resident.

LONG BEACH. One reported sometime before 1908 about the building of the Point Lookout Life Saving Station by C. H. Lott (Bicknell).

New York State. Breeding formerly on Staten Island, where it has arrived as early as April 17, 1908 (Chapin). Now nesting only in northern Westchester County, where Dr. Fisher reported it as late as October 17.

CENTRAL PARK. Rare spring transient, April 25, 1913 (Anne A. Crolius) to May 16, 1913 (Griscom); only one fall record, October 7, 1916 (Hix).

BRONX REGION. Rare transient, May 1, 1916 (L. N. Nichols) to May 14, 1884 (Dwight); no fall records.

New Jersey. Common summer resident in the hill country, absent elsewhere. Rare as a transient where it does not breed.

ENGLEWOOD REGION. A few birds bred formerly on the Palisades north of Englewood; now a rare transient, noted chiefly the first week in May; April 29, 1911 (Weber) to May 17, 1914 (LaDow and N. F. Lenssen); October 5, 1913 (G. Clyde Fisher).

NIGHTHAWK (*Chordeiles virginianus*) Fig. 20

The Nighthawk prefers bare rocky hillsides or wild pastures to nest in. Where such country is found, the harsh *peent* is a common sound, coming out of the black depths of the sky, and at dusk the bird can be seen flitting high overhead on long slender wing, with a peculiarly irregular flight. Oddly enough, in recent years the flat city roofs have provided an acceptable nesting site, and the bird is as common here as anywhere in the country. In most of our wooded and alluvial country the Nighthawk is absent, and is known as a rare spring and common August transient. It is often diurnal at the latter season, and large flocks are occasionally noted. In the spring it is one of our latest arrivals, rarely recorded before May 10th. Reports of birds arriving in March prove to be based on Woodcock seen flying overhead at dusk and uttering the harsh note so similar to that of this species.

Long Island. Common summer resident, (April 25) May 8 to October 15, and casually November 3. Most abundant in August.

ORIENT. Locally common or rare summer resident, April 28, 1914 to October 12, 1916.



Photograph by F. M. Chapman

Fig. 20. Nighthawk

MASTIC. Fairly common summer resident, common in the fall migration.

LONG BEACH. Very rare on migration, one shot September 7, 1891 (J. D. Foot); three birds August 26, 1915 (Bicknell).

New York State. Breeds in New York City on flat roofs, and near Ossining (Fisher). Otherwise a rare spring and common fall transient.

CENTRAL PARK. Present throughout the breeding season, here roosting only in tall trees; May 6, 1912 (Anne A. Crolius) to October 10, 1911 (Hix).

BRONX REGION. A transient, rare in spring, often common in fall; reported to have nested in 1916 near Van Cortlandt Park; May 4, 1913 (L. N. Nichols) to June 6, 1909 (Griscom); August 18, 1920 (Griscom) to October 16, 1915 (E. G. Nichols).

New Jersey. A rare and very local summer resident throughout our area, due to lack of favorable habitat. As a transient rare in spring, often common in fall. Mr. Chas. A. Urner supplies representative dates for the vicinity of Elizabeth; May 12, 1920 to June 2, 1920; August 24, 1919 to September 15, 1918.

ENGLEWOOD REGION. Rare spring, common fall transient; May 9, 1888 (Chapman) to May 20, 1886 (Chapman); August 4, 1886 (Chapman) to October 10, 1915 (Rogers). A pair or two breed near Leonia (Weber).

CHIMNEY SWIFT (*Chaetura pelagica*)

Few people are so unobservant as to overlook the bow-and-arrow-like form and the loud chippering notes of the Swift, as it streaks across the summer sky. It breeds throughout our area whenever chimneys can be found, and is consequently commonest in New York City and the suburbs. I have no reports of its nesting in hollow trees anywhere in our area at the present time.

The Chimney Swift is more irregular in its arrival and departure than most of our other purely insectivorous birds. The bulk of the summer resident population never arrives until the first big wave of May. On the other hand, four years out of five a few birds are reported the last week in April, on a very few occasions before the 20th. Moreover there is often a complete hiatus between the arrival of these early birds and the arrival of the majority of the breeding individuals. The situation is exactly the same in the fall. Breeding birds gather in large flocks in August and have a common roosting chimney. As a result the species disappears from many sections, such as Central Park, for instance, where it is most exceptional to see Swifts even late in August. Another period of hiatus ensues, and then there is a distinct migration of Swifts sometime between September 20 and October 10, a migration which is often overlooked entirely, unless the sky be most carefully watched. This evidence does not warrant a positive statement of fact, but certainly justifies the suspicion that such early and late individuals are

often transients to and from more northern breeding grounds. Should this be correct, it is the reverse of the usual rule in this territory, namely, that locally breeding individuals are the first to arrive.

To cite this bird's exact status in all the local areas would be useless repetition.

Long Island. The extreme dates are April 21, 1908 at Orient (Roy Latham) to October 18.

New York State. Earliest date April 19, 1914 in Central Park (Griscom); latest, October 23 at Ossining (Fisher).

New Jersey. Earliest date, April 16, 1922 near Elizabeth (Urner); latest October 11, 1914 at Newton, Sussex Co. (Hix).



Photograph by A. A. Allen

Fig. 21. Ruby-throated Hummingbird

RUBY-THROATED HUMMINGBIRD (*Archilochus colubris*) Fig. 21

The Hummingbird is unique, and cannot be confused with any other of our local birds. Sphinx or hummingbird moths are, however, often mistaken for it. The tiny body lodges a strong personality, which is afraid of absolutely nothing, and is subject to frequent outbreaks of bad temper, often on very slight provocation. It is a common summer resident in the more rural and country districts of our area, scarce or absent near New York City. Breeding birds arrive around May 9 and depart about September 15. The migration of transients

is chiefly during the middle weeks of May and August, in which months the Hummingbird reaches its maximum numbers.

Long Island. Common summer resident, May 3 to September 23, and casually to October 15.

ORIENT. Uncommon summer resident, May 3, 1916 to October 2, 1913.

MASTIC. Fairly common summer resident.

LONG BEACH. Rare transient, May 24, 1914 (Hix); August 26, 1917 (Bicknell) to September 17, 1914 (Bicknell).

New York State. A common summer resident in the country districts. Probably still breeds on Staten Island. Reported as late as October 3 at Ossining (Fisher).

CENTRAL PARK. A transient, uncommon in late spring, regular in August. Bred formerly. May 4, 1904 (Hix) to May 28, 1910 (Griscom); August 6, 1908 (Griscom) to September 16, 1921 (Griscom).

BRONX REGION. Bred formerly throughout, now not nearer than Hastings (Granger); elsewhere an uncommon transient, regular in August only; May 6, 1909 (Griscom) to June 2, 1919 (L. N. Nichols); August 9, 1921 (Griscom) to September 22, 1921 (Griscom).

New Jersey. A common summer resident in the rural districts, scarce or absent in the suburbs. At Elizabeth, where the bird no longer breeds, transients have been noted as late as June 2, 1920 and as early as July 28, 1918 (Urner).

ENGLEWOOD REGION. Rare summer resident, May 3, 1914 (Mrs. Sumner) to September 23, 1909 (Griscom).

KINGBIRD (*Tyrannus tyrannus*) Fig. 22

The familiar Kingbird is a common summer resident in open country in our rural districts, scarcer near the suburbs and on the coastal plain of Long Island. The first birds arrive with the first big wave in May, usually between May 4 and 6. There are a few late April records, but in all such cases the birds have disappeared before other individuals have arrived at the normal time. The arrival of the residents is completed about May 15. Transients are passing until the end of May. The fall migration starts early in August, and it

*Photograph by F. M. Chapman*

Fig. 22. Kingbird

is most exceptional to see a Kingbird after the first week in September. It is easily the most gregarious of our Flycatchers, and late in August flocks are by no means rare, sometimes containing several hundred birds.

Long Island. Common summer resident, April 21 to September 7, exceptionally or casually to September 20 and October 9.

ORIENT. Common summer resident, April 28, 1915 to September 9, 1915; average May 3 to September 7.

MASTIC. Common summer resident.

LONG BEACH. A regular transient; April 22, 1920 (Bicknell); May 11, 1916 (Bicknell) to May 30, 1920 (Granger, Janvrin, Rogers); August 13, 1914 (Bicknell) to September 17, 1914 (Bicknell), and September 21, 1916 (Bicknell).

New York State. Common summer resident in the country districts, rare near the City. Reported April 29 at Ossining (Fisher).

CENTRAL PARK. A regular transient, but uncommon; May 2, 1905 (Hix) to May 30, 1906 (Hix); August 5, 1907 (Hix) to August 30, 1913 (Griscom) and September 22, 1904 (Hix). One noted April 23, 1920 (Griscom and Miss E. H. McVickar).

BRONX REGION. Now a rare summer resident, but a common transient; April 30, 1879 (Bicknell); May 6, 1909 (Griscom) to August 28, 1918 (Hix); casual October 14, 1922 (Hix).

New Jersey. Common summer resident, rare or absent in the suburban section. Reported September 17, 1919 at Elizabeth (Urner).

ENGLEWOOD REGION. Common transient, now an uncommon summer resident; April 25, 1920 (Mrs. E. W. Vietor); May 2, 1914 (Hix) to September 15, 1887 (Chapman).

GRAY KINGBIRD (*Tyrannus dominicensis*)

Accidental visitant from the South. One specimen taken at Setauket, Long Island, about 1874. One or two sight records from New Jersey before me, without any details, are not worth a moment's serious consideration.

ARKANSAS KINGBIRD (*Tyrannus verticalis*)

Probably to be classed as a casual visitant from the far West, as it has occurred with suspicious frequency in recent years in the northeastern States. It is interesting to note that all the records are in the fall, and comparatively late.

Long Island. Two birds seen and one collected at Miller Place, September 6, 1912; one seen on October 30 was possibly the same individual (A. H. Helme). One seen for nearly an hour near Montauk Point on January 1, 1921 (Crosby, Griscom and

Janvrin, Auk, 1922, page 119). In both years other individuals were reported elsewhere in the East.

New York State.

BRONX REGION. An immature male collected at Riverdale, October 19, 1875 (Bicknell).

CRESTED FLYCATCHER (*Myiarchus crinitus*)

The raucous voice of the Crested Flycatcher is a familiar sound throughout the woodlands of our area. Its migrations closely parallel those of the Kingbird; in fact no two of our local species travel on a more nearly identical schedule.

Long Island. Common summer resident, (April 24) May 2 to September 14, and October 2, 1895 (A. H. Helme at Miller Place).

ORIENT. Common summer resident, April 17, 1919, and May 4, 1916 (Mabel R. Wiggins) to September 14, 1913.

MASTIC. Common summer resident.

LONG BEACH. One of the very few woodland species as yet unrecorded.

New York State. Common summer resident except near the City.

CENTRAL PARK. Regular transient, not uncommon; April 29, 1914 (Griscom), May 3, 1910 (Anne A. Crolius) to May 26, 1918 (Hix); August 2, 1908 (Griscom) to September 14, 1911 (Hix).

BRONX REGION. Now an uncommon summer resident, May 2, 1916 (L. N. Nichols) to September 15, 1917 (Hix).

New Jersey. A common summer resident. The latest date before me is September 17, 1916 near Elizabeth (Urner).

ENGLEWOOD REGION. Common summer resident, May 3, 1913 (Bird Lore) to September 8, 1906 (Weber).

PHOEBE (*Sayornis phoebe*)

A generally common summer resident throughout the area, but its more limited habitat for nesting makes it less numerous individually than several other Flycatchers. As a transient, however, its numbers are easily the greatest. The Phoebe arrives with the second wave of March birds, usually between March 18 and 23, and transients are passing by throughout April. The fall migration starts with the first

frosty nights in September and continues until the first week in November. It is one of the rarest of our summer birds in winter.

Long Island. Fairly common summer resident, abundant transient, March 14 to October 26; one winter record.

ORIENT. A transient, common in fall, locally rare and irregular in spring; March 20, 1916 to April 12, 1913; September 14, 1913 to October 15, 1917 (Mabel R. Wiggins); recorded in late December on Gardiner's Island.

MASTIC. Rare summer resident, common as a transient in the fall.

LONG BEACH. Rare spring, uncommon fall transient; March 30, 1919 (Bicknell) to April 19, 1916 (Bicknell); September 8, 1921 (Bicknell) to October 27, 1912 (Griscom). Reported May 26, 1918; if this identification be correct, the record is purely casual.

New York State. A generally common summer resident.

CENTRAL PARK. Common transient; March 10, 1909 (Griscom) to late April and most exceptionally to May 7, 1909 (Griscom); September 3, 1916 (Janvrin) to November 4, 1917 (Hix).

BRONX REGION. Common summer resident, March 22, 1914 (J. Kieran) to November 21, 1918 (L. N. Nichols); one winter record, January 1, 1919 (L. N. Nichols).

New Jersey. Common summer resident. There is only one winter record, a single bird observed from January 1 to February 12, 1913 in the Scotch Plains Notch near Plainfield (W. DeW. Miller). It is recorded as late as December 10, 1910 at Morristown (R. C. Caskey).

ENGLEWOOD REGION. Fairly common summer resident, more numerous in migration; March 13, 1894 (Bird Lore) to November 16, 1911 (Bird Lore).

OLIVE-SIDED FLYCATCHER (*Nuttallornis borealis*)

The Olive-sided Flycatcher is an uncommon transient in the Hudson Valley, but can be seen almost every spring and fall. Elsewhere, however, it is much rarer, especially in spring. While this statement is unquestionably correct, it is equally true that the great majority of bird-students have an

utterly false impression of its rarity. The bird is absolutely silent on migration, is always perched on the tops of the highest trees, usually in dense woodlands, and is certain to be overlooked unless the neck is constantly craned upwards. Moreover, interest usually decreases rapidly after the height of the migration is over in spring, and does not revive until the middle of September. Those who would see this species must be afield regularly in late May, early June and August. The large head, short neck, generally dark coloration, and narrow stripe of whitish down the middle of the underparts, make it readily recognizable.

Long Island. Rare transient, especially in spring; May 15 to June 12, 1908 (Prospect Park, E. Fleischer); August 19 to September 27.

ORIENT. Rare transient; May 22, 1916 to May 30, 1915; September 14, 1913 to October 16, 1920. [The fall dates are just a month later than normal; the October record, if correct, is casual and unprecedented.—Griscom]

MASTIC. No record.

LONG BEACH. Casual transient, September 14, 1916 (Bicknell).

New York State. Uncommon in the Hudson Valley in Central Park, New York City, and Ossining (Fisher). Rare or very rare elsewhere.

CENTRAL PARK. Uncommon transient, recorded almost every spring and fall; May 10, 1922 (Griscom) to May 31, 1907 (Hix and LaDow); August 12, 1922 (Griscom) to September 8, 1918 (Hix). Rarely seen before May 20.

BRONX REGION. Apparently very rare, only three recent records, but very little early fall observation in this section; May 22, 1920 (C. L. Lewis); about August 20, 1917 (Griscom) and August 30, 1918 (C. L. Lewis).

New Jersey. Over most of the area a very rare spring and rather rare fall transient. While the dearth of records may in part be due to lack of observation, this is certainly not the case at Plainfield, where there are only two spring records in twenty-five years. Mr. W. DeW. Miller tells me that in the fall he would sometimes see no birds, another year several. At Englewood, in the immediate vicinity of the Hudson Valley, the bird is by no means so

rare. Otherwise I have no other spring records for New Jersey, and very few for the fall, one at Newton (Hix), one at Montclair (Howland), three near Elizabeth (Urner).

ENGLEWOOD REGION. Eight spring records in ten years, May 12, 1912 (Griscom and others) to May 29, 1915 (Rogers); fall observation defective, August 19, 1888 (Chapman) to August 23, 1888 (Chapman).

WOOD PEWEE (*Myiochanes virens*)

A familiar woodland species throughout the area, which scarcely requires extended notice. It is one of our latest spring arrivals. The first individuals appear about the height of the migration, but the bulk of the breeding individuals do not arrive until at least a week later. The bird is rare after the middle of September. The wing-bars should always eliminate the Phoebe. Size usually is sufficiently well marked to eliminate any member of the genus *Empidonax*, and is much better for this purpose than color, but even the experienced observer is occasionally in doubt. The wings are *longer than the tail*, however, and this generic character can be used successfully in the field.

Long Island. Common summer resident, (May 5) May 12 to September 23, casually to October 13 and 19.

ORIENT. Locally common or rare summer resident, April 30, 1913 to October 10, 1915; average arrival May 12. [The April date is unprecedented—L. G.]

MASTIC. Fairly common summer resident. Noted once as late as October 13.

LONG BEACH. Rare transient; May 18, 1916 to May 28, 1914 (Bicknell); August 24, 1919 (Crosby) to September 25, 1919 (Bicknell) and October 5, 1919 (Crosby).

New York State. Common summer resident.

CENTRAL PARK. Common transient, a pair or two still breed; May 4, 1905 (Hix), May 6, 1909 (Anne A. Crolius), May 11, 1914 (Anne A. Crolius) to October 1, 1914 (Hix) and October 21, 1907 (Anne A. Crolius and Griscom).

BRONX REGION. Now an uncommon summer resident, May 14, 1917 (C. L. Lewis) to September 20, 1916 (L. N. Nichols). A specimen was collected near New Rochelle on December 13, 1900 (L. M. McCormick), a purely accidental occurrence.

New Jersey. Common summer resident. The latest fall date before me is October 7, 1917 at Elizabeth (Urner).

ENGLEWOOD REGION. Common summer resident, May 10, 1900 (Bird-Lore) to September 28, 1885 (Chapman).

YELLOW-BELLIED FLYCATCHER (*Empidonax flaviventris*)

This Flycatcher is by no means uncommon in the Hudson River Valley, but is rarer on Long Island and in the interior of New Jersey, especially in spring. I have never known it to sing on migration, but the call-note, a musical whistled *phée-i*, is sometimes heard, and is absolutely diagnostic. The dark olive-green shade above and the uniformly yellowish underparts make it identifiable under favorable conditions.

Long Island. Rare transient; May 19 to June 10; August 4 to September 27.

ORIENT. Very rare spring transient, only two certain records, May 23, 1908 and May, 1917 (Mrs. Frank D. Smith).

MASTIC. Rare transient.

LONG BEACH. Very rare; May 25, 1916 (Bicknell); four fall records, September 1, 1919 to September 17, 1914 (Bicknell). On September 2, 1920 eight or more individuals observed (Bicknell).

New York State.

CENTRAL PARK. Uncommon spring transient; regular and often common in fall; May 14, 1921 (Griscom) to June 4, 1917 (Hix); August 10, 1922 (Griscom) to September 28, 1909 (Griscom). Recorded chiefly in the last week of May and the last two weeks of August. Woodruff and Paine's List of 1886 credits E. T. Adney with dates from September 19 to October 10, 1885. It is almost certain that these refer at least in part to some other species.

BRONX REGION. Rare transient; May 17, 1890 (Dwight) to June 3, 1890 (Dwight); August 22, 1890 (Dwight) to September 10, 1896 (Dwight).

New Jersey. Generally a rare spring, uncommon but regular fall transient.

ENGLEWOOD REGION. Rare spring, uncommon fall transient; May 15, 1904 (Bildersee) to May 31, 1886 (Chapman) and June 19, 1910 (Weber, specimen collected); August 19, 1888 (Chapman) to September 24, 1904 (Hix and Wiegmann).

ACADIAN FLYCATCHER (*Empidonax virescens*)

The identifiability in life of the species of *Empidonax* is a matter to which Messrs. W. DeW. Miller, J. T. Nichols, C. H. Rogers and the writer have given special attention. Collecting has proved that in spite of the greatest care, it is *impossible* to be absolutely certain in separating the Acadian, Alder and Least Flycatchers by color characters even in the spring. In the fall plumage it is out of the question, the determination of museum skins often being very critical. It is quite true that extremes in size or highly plumaged individuals can often be named with approximate certainty, but even here collecting has proved a low percentage of error. The songs of all three species are, however, easily recognizable. Unfortunately, while the Chebec sings regularly on migration, the two rarer species are generally silent. In this respect they are exasperating birds. Every spring and fall I see individuals which I am convinced are one or the other, but all too rarely will they open their mouths and sing their names. The records for these species given are based either on collected specimens or when satisfactory evidence is submitted that the bird was singing. All other reports and observations have been rejected.

The Acadian Flycatcher was formerly a not uncommon summer resident in some sections near New York City. For some reason it has unaccountably disappeared, and is now practically unknown. An occasional singing bird shows that transients are present in spring, but even so there is enough evidence to warrant the statement that it has decreased. Just why this species should have done so is a question for which I have no available explanation.

Long Island. Formerly bred locally from Jamaica to Oyster Bay and on Gardiner's Island. Its presence in most parts of this area at the present time requires confirmation. The only authenticated dates are May 19 to July 11, which are not at all representative.

ORIENT. Rare summer resident on Gardiner's Island. [No satisfactory migration dates.—L. G.].

MASTIC. No definite record (J. T. Nichols).

LONG BEACH. No record.

New York State. Formerly a common summer resident almost throughout; now extirpated, unless still surviving in northern Westchester County; otherwise a rare transient. Recorded May 10 to August 27 at Ossining (Fisher).

CENTRAL PARK. Several pairs bred in 1892 (Chapman). From 1900 to 1910 apparently uncommon but regular in spring; since then rapidly decreasing and not recorded definitely in several years. Chiefly in late May, but scarcely any singing records; early June, about 1904 (Anne A. Crolius in verbal statement to writer). No definite fall records. Most of the spring observations worthless, and all those *published* definitely known to be worthless.

BRONX REGION. Formerly a common summer resident, May 13, 1887 (Dwight) to September 19, 1885 (Dwight); only three definite records in recent years, based on singing birds; June 9, 1915 (E. G. Nichols), June 3, 1917 (L. N. Nichols), June 3, 1920 (Griscom).

New Jersey. Bred formerly at Plainfield and Englewood, now apparently gone; a few pairs still breed near Newton; practically unknown in recent years elsewhere in our area. The latest date is a specimen in the Dwight Collection from West Orange, September 10, 1898.

ENGLEWOOD REGION. Bred formerly at West Englewood and on the Palisades; not found nesting since 1904 (Hix and Stackpole). The migration data in Bird-Lore give as an early date May 5, 1897. I cannot vouch for its accuracy. The latest date is September 4, 1887 (Chapman). The only definite recent records are May 17, 1914 on which day two birds were found in full song (Griscom, J. M. Johnson, LaDow and Lenssen) and June 22, 1919, a singing bird above Taylorville, which may have been breeding (Rogers). Every spring, however, the writer sees birds which are probably this species.

ALDER FLYCATCHER (*Empidonax traillii alnorum*)

The Alder Flycatcher nests locally throughout northern New Jersey in its favorite habitat of alder swamps. Elsewhere it is a rare transient, apparently one of the very latest of our landbirds to arrive and depart in the spring. Few

specimens have been taken, and the bird is seldom identified, as it rarely sings on migration. The song is less harsh and abrupt than that of the others, which usually suggest a sneeze. Syllabifications are scarcely satisfactory, but the Alder says *phe-bé-o* or *great dé-al*. The accent is always on the *middle* syllable. The Acadian has two songs, both violent sneezes. One of two syllables has the accent on the *first*. Another of three has the accent on the *last*. The well-known song of the Least Flycatcher has two syllables with the accent on the *last*.

Long Island. Rare transient; two spring records in late May; specimens have been taken from late August (birds striking Fire Island Light) to September 16, 1907 at Mt. Sinai (Murphy).

ORIENT. August 1, 1910. [Unless the specimen was collected, this record cannot be regarded as positive.—L. G.]

MASTIC. No definite record.

LONG BEACH. Two records based on singing birds; May 29, 1915 (Bicknell) and May 26, 1918 (Janvrin and J. M. Johnson).

New York State. Reported at Ossining as a rare transient, May 19 to May 31 and August 29 (Fisher). Specimens now in the Dwight Collection struck the Statue of Liberty, September 8, 1890 and September 26, 1889.

CENTRAL PARK. Miss Anne A. Crolius informed me that in early June about 1904 she positively identified a singing Alder Flycatcher. On two occasions in May I have had excellent studies of birds which were probably this species.

BRONX REGION. Only one definite record of a singing bird, May 30, 1915 (Rogers).

New Jersey. A local summer resident in the deeper alder swamps, scattered in Sussex, Warren and northern Passaic Counties, south to the Great Swamp near Chatham (Miller and others), Ash Swamp near Plainfield (Miller and others), and the swamps west of Elizabeth (Urner). Elsewhere it is a rare transient and is without exception the latest of the land birds, most of the records in early June. The earliest arrival date near Elizabeth is May 21, but Mr. Miller informs me that he has seen the bird earlier than this near Plainfield, and there is a very early one for Englewood.

ENGLEWOOD REGION. Rare transient, spring records only; May 12, 1912, a singing bird (Griscom, J. T. Nichols and others) to June 15, 1910 (Weber, specimen collected).

LEAST FLYCATCHER (*Empidonax minimus*)

The Least Flycatcher or Chebec, is still a common summer resident in our rural and country districts. It will apparently not tolerate more civilized conditions, and as a result has been steadily decreasing for twenty-five years. The north shore of Long Island and the vicinity of Plainfield, New Jersey, are about the normal southern limit of its breeding range. Breeding birds arrive early in May, about once in five years the last days of April. As a transient the species is still fairly common, but somewhat irregular, during May, the latter half of August and early September, and fortunately for the observer it sings quite freely, at least in the early morning. There are occasional "waves", when *Empidonax* floods the woods. While positive identifications are usually impossible, there is every reason to believe that the great majority of individuals belong to this species. I should say that there were at least ten Chebecs to one individual of either of the two other species.

Long Island. Rare and local summer resident on the north shore; a common transient; (April 26) May 5 to September 11.

ORIENT. Rare summer resident on Gardiner's Island; rare transient elsewhere; April 26, 1915 to May 12, 1906; September 5, 1916 (Mrs. Frank D. Smith) to October 15, 1916 (Mabel R. Wiggins). [The last date is too abnormal to be given full credence. In so difficult a group the species should be determined definitely by collecting only, in all exceptional cases.—L. G.]

MASTIC. Small Flycatchers are uncommon transients here. While this species has only once or twice been positively recorded, the majority of individuals noted are probably referable to it.

LONG BEACH. Rare transient; May 17, 1911 (Griscom), May 21, 1916 (Janvrin); transients noted in the fall between September 1, 1921 and September 25, 1919 are in all probability this species (Bicknell).

New York State. Now almost extirpated in our area as a summer resident; probably still occurring in northern Westchester County.

CENTRAL PARK. Bred in 1892 (Chapman); still a fairly common transient, but less so than formerly. April 26, 1912 (Anne A. Crolius) to May 29, 1907 (Griscom). In the fall small Flycatchers occur commonly from August 11, 1913 (Griscom) to October 1, 1903 (Hix). While no positive identifications of this species have ever been made, the dates are quite representative, and it would be idle to pretend that the hundreds of individuals recorded over many years are all Acadian or Alder Flycatchers.

BRONX REGION. Formerly a common summer resident throughout, now not nesting regularly anywhere; a pair bred at Riverdale in 1917 (Griscom); May 6, 1919 (L. N. Nichols) to September 19, 1920 (L. N. Nichols, probably this species). Small Flycatchers are often common in early September.

New Jersey. A common summer resident only in Sussex, Warren, Morris and Passaic Counties, steadily decreasing or disappearing in the suburban section.

ENGLEWOOD REGION. Formerly common, now rare summer resident; still fairly common as a transient; April 25, 1913 (Weber) to September 13, 1911 (Weber, specimen collected).

HORNED LARK (*Otocoris alpestris alpestris*)

The Horned Lark is an abundant winter visitant to the outer beaches and salt meadows of Long Island. It also occurs regularly on the salt meadows near Newark and to some extent along the Sound. Elsewhere in our area it is very rare or casual. It arrives with great regularity the first week in November and remains till the end of March, its stay more extended at the extreme eastern end of Long Island.

Long Island. Abundant winter resident; October 24 to April 12, exceptionally as early as October 7, 1909 at Rockaway Beach (Rogers). See Orient dates.

ORIENT. Abundant winter resident, October 2, 1911 to May 3, 1914; average October 20 to April 25.

MASTIC. Uncommon winter visitant.

- LONG BEACH. Common winter visitant, October 24, 1920 (Janvrin) to April 12, 1917 (Bicknell).

New York State. Rare winter visitant on the salt marshes of the Sound; uncommon on the south shore of Staten Island; casual at Ossining (Fisher); unknown elsewhere.

BRONX REGION. Rare winter visitant, October 25, 1917 (L. N. Nichols) to March 25, 1919 (L. N. Nichols).

New Jersey. Common winter visitant to the salt meadows south of Newark, October 31, 1920 to April 2, 1921 (Urner). Very rare or unknown further inland, occurring only after severe storms and disappearing as soon as the weather moderates. Mr. Miller informs me that he has seen Horned Larks near Plainfield on several occasions, but usually could not determine the subspecies. One specimen of this race, however, was found dead February 27, 1921, near Millington. On January 1, 1913 a flock of thirty birds were discovered in the fields near Millington. Two of these birds were positively identified as adults of typical *alpestris* (Griscom and LaDow). The others flew before a positive determination was possible. Recorded near Cranford (Rogers).

ENGLEWOOD REGION. Horned Larks are very rare visitors to the Overpeck Marshes after heavy storms, and still rarer elsewhere from February 23, 1914 (R. S. Lemmon) to March 12, 1916 (Mrs. Bowdish). The subspecies has never been positively determined, so far as I am aware.

PRAIRIE HORNED LARK (*Otocoris alpestris praticola*)

There is much misconception of the status of this subspecies in our territory, and much has been published which is unquestionably erroneous. Inexperienced observers are constantly calling pale female or immature Horned Larks, Prairie Horned Larks, and the recorded flocks of fifty and seventy-five individuals of the latter race exist in fancy but not in fact in this region. Suffice it to say that only under the most favorable circumstances and at very close range can the Prairie Horned Lark be distinguished from the typical bird, and then only when direct comparison is available. On such occasions the line over the eye is *pure white*. Another theory current is that Horned Larks seen inland must be *praticola*. I have no evidence whatever that this is the case. In the

ensuing discussion all sight records are rejected, unless made by people familiar with Museum series, or accompanied by a satisfactory statement of the observation. An exception, however, is made for mid-summer observations. There is no doubt that the Prairie Horned Lark is a rare bird in this region, and there is no reason to suppose that it breeds or ever did breed anywhere except in northern New Jersey. It has occurred elsewhere chiefly in the winter months, but there are a few July and September records. These have been interpreted as evidence of breeding, but I cannot regard it as satisfactory. The bird nests in April, and July individuals are in all probability nothing but summer wanderers.

Long Island. Specimens have been taken at Long Island City on July 31, 1886 and September 14, 1887. Two birds seen July 2, 1903 at Montauk Point (C. G. Abbott and P. H. Bahr) were in all probability this subspecies. Otherwise known only as a rare winter visitant. Its exact status cannot be given, as too many observations are erroneous. On the other hand it is unquestionably not as rare as the very few specimens collected would indicate. The only one in the American Museum was shot on March 7, 1891.

ORIENT. Mr. Roy Latham writes that it is a frequent winter visitant, and recorded in summer, but no breeding evidence obtained. While this is a most interesting statement from an experienced observer, the bird's frequency in winter should be established by specimens.

MASTIC. No record.

LONG BEACH. There are eleven observations in the last thirteen years, which have been made with every possible care, three by Griscom, the balance by Bicknell. The extreme dates are November 4, 1920 to March 18, 1916. It is only proper to state, however, that there is always a possibility of error. The writer should prefer to regard his own observations as probable evidence of occurrence rather than as positive records.

New York State. A bird seen on the parade ground south of Van Cortlandt Park, New York City, on July 29, 1916 was in all probability this subspecies. Otherwise no record.

New Jersey. A few pairs nest along the high slaty ridge between Newton and Johnsonburg, Sussex County. The first nest collected in May, 1893, and several others taken, the last April 17,

1917. Observed every year (Robt. H. Southard, Stephen D. Inslee, Henry F. Merriam, P. B. Philipp and others). I am particularly indebted to Mr. Southard for furnishing full details on this interesting fact, previously unrecorded. Very rare winter visitant elsewhere. Reported at Summit (L. K. Holmes). Mr. Miller has collected one specimen near Plainfield in winter, and identified this subspecies positively on one other occasion. Mr. Urner regards as probably this subspecies birds seen on January 25 and February 23, 1920. He has also noted a Lark on the abnormal date of September 25, 1921. No other records for our area.

ENGLEWOOD REGION. The Horned Larks reported above on March 12, 1916 by Mrs. Bowdish were identified by her as this subspecies.

BLUE JAY (*Cyanocitta cristata*)

A common and well known permanent resident in all wooded sections, absent only on the outer beaches, Gardiner's Island and Orient, in all of which localities, however, it occurs as a transient. The Blue Jay is highly migratory, and the woods are full of them from late September through October, and again from late April to the middle of May. The spring migration is later than would be expected in so hardy a bird.

LONG BEACH. Casual on migration; May 11, 1916 (Janvrin); May 17, 1917 (Bicknell).

CENTRAL PARK. Uncommon but regular transient, occasionally abundant; especially in fall; occurring chiefly in May and early October; May 2, 1913 (Griscom) to June 6, 1917 (Hix); August 31, 1914 (Hix) to November 16, 1907 (Griscom); rarely seen after May 15 or before September 25.

NORTHERN RAVEN (*Corvus corax principalis*)

The Raven is a permanent resident in the wildest sections only, and disappears as civilization advances. Eighty years ago Giraud called it occasional on Long Island, and it was reported as formerly common on the northern coast of New Jersey. On the coast of southern New Jersey it survived much later. Its larger size is not a satisfactory identification character, unless there is direct comparison with the Crow.

Its sailing and soaring is, however, often diagnostic, the tail is wedge-shaped and the feathers of the throat are lengthened, lanceolate and often project slightly, giving a puffy appearance. Above all the note is a loud, hoarse *c-r-r-ruck*, totally different from the *caw* of the Crow.

Long Island. The last specimens shot in 1836 and 1848.

New Jersey. One shot near Morristown about 1881. The Raven was subsequently believed to be extinct in our area, and it was a great surprise when Mr. Justus von Lengerke saw two birds on September 21, 1918 near Culver's Gap in Sussex County, secured one, and probably wounded the other. (See Miller, *Auk*, 1919, p. 293.) It is possible that these birds were a resident pair rather than that they were stragglers from the Adirondacks or Maine. There is still much wild country unexplored in north-western New Jersey, and there is a remote possibility that a pair or two may still survive.

CROW (*Corvus brachyrhynchos*)

This common and well-known bird is a permanent resident throughout the region, and visits even the outer beaches of Long Island throughout the year. It is noticeably migratory in late fall and early spring. In winter it increases near the coast, but decreases in northern New Jersey.

CENTRAL PARK. Formerly a permanent resident; not noticed in winter since 1901; now an uncommon visitant, its dates of occurrence by no means coinciding with its regular migration. Spring dates are from March 8, 1904 (Hix) to May 9, 1919 (Griscom), most frequently recorded in the latter half of April. Young Crows regularly wander into the Park in late July and August, but the species cannot be determined satisfactorily. There are relatively few fall records; September 26, 1914 (Hix) to November 10, 1912 (Griscom).

FISH CROW (*Corvus ossifragus*)

The Fish Crow is associated in the minds of many people with the seacoast, but this is true only in that it does not occur very far inland except in river valleys. In our territory it is quite erratic in its status, resident in some

localities, only breeding in others, but has undoubtedly increased and spread northward and inland. Where not resident it is one of our earliest spring arrivals. On the other hand it is one of the first species to depart in the fall. Its "caw," high-pitched, nasal, hoarse, and distinctly staccato, is easily distinguishable from the corresponding call of the common Crow. The voices of young Crows in summer, are, however, quite similar, and are often not safely separable. The smaller size is of no value, unless direct comparison is available.

Long Island. Locally common permanent resident, comparatively scarce on the outer beaches of the south shore, which is contrary to what would be expected.

ORIENT. Rare resident, sometimes common visitant in fall.

MASTIC. Fairly common in spring; may breed inland.

LONG BEACH. A decidedly rare visitant, occurring at all seasons; has never bred; formerly not so rare.

New York State. Confined in our area to the Hudson River Valley and its immediate vicinity, and the Sound. A summer resident only, except on Staten Island.

CENTRAL PARK. Uncommon visitant, occurring chiefly in late April and early May; April 6, 1914 (Hix) to June 11, 1901 (Chubb); no definite identifications in August.

BRONX REGION. Common summer resident, March 14, 1921 (L. N. Nichols) to September; one winter record, February 12, 1906 (Hix).

New Jersey. Confined to the Hudson River valley, the adjacent meadows of Newark and Hackensack, the Raritan River valley, and the adjacent country. Occasional in the Plainfield region, but rare in winter (Miller). One was seen and heard at close range on May 21, 1921 at Bridgeville, Warren County (Griscom), so it may extend up the Delaware as far as the Water Gap. Perhaps casual at Stag Lake, Sussex Co., one collected April 16, 1922 (Justus von Lengerke).

ENGLEWOOD REGION. Common summer resident, February 22, 1915 (N. F. Lenssen) to August 30, 1887 (Chapman); only twice recorded later than this, October 9, 1921 (Griscom and J. M. Johnson) and October 13, 1906 (Hix and Wiegmann). The evidence available would show that these dates are quite exceptional.

STARLING (*Sturnus vulgaris*)

The successful introduction of this European bird will probably prove even more regrettable than that of the House Sparrow. Equally aggressive, and much larger and stronger, it undoubtedly drives away many of the smaller species, which prefer some familiarity with man. At present it is common or abundant throughout this region, nesting even in the most remote rural districts of northwestern New Jersey. In the fall and winter great flocks are often seen, and there is considerable evidence to show that the bird is becoming migratory. The first birds were released in 1890. First noted in the Bronx, January, 1899 (Dwight), at Englewood March, 1898 (Isabel McC. Lemmon), at Gardiner's Island, Long Island, December, 1908 (Roy Latham), at Montclair, New Jersey, October, 1904 (Howland).

BOBOLINK (*Dolichonyx oryzivorus*)

This distinguished songster was formerly a common summer resident throughout our territory, but is now found only in the outlying and more rural districts. Its great decrease started fifty years ago when trapping the males for cage-bird purposes was a profession on a large scale. The growth of the City and the rapid development of the suburbs were also factors with which the Bobolink could not or would not compete. The so-called "sport" of Reed-bird shooting in the fall was also a contributing cause, though it does not seem to have been practiced so extensively here as further south. At the present time the bird is a rare transient in the spring in places where it does not breed. The great flocks of migrating males, singing in chorus as they sweep northward break up before they reach this latitude, and I have only once seen and heard this phenomenon locally. In the fall, however, unnumbered multitudes pass overhead, and the mellow *chink* can be heard from the sky every night during August and early September. With rare exceptions these

birds alight only in our fresh water coastal marshes, particularly where wild rice (*Zizania*) grows, and where they are often second in abundance only to the Tree Swallow. The Bobolink is rarely seen before May 10 or after September 25.

Long Island. Locally a not uncommon summer resident, chiefly on the north shore; abundant in fall passing over, chiefly along the south shore; May 1 to October 10, casually to November 2, 1915 at Flushing (Francis Harper).

ORIENT. Locally a rare summer resident; uncommon spring, common fall transient; May 10, 1906 to October 12, 1915; average May 12 to October 6.

MASTIC. Uncommon summer resident; abundant transient in the fall.

LONG BEACH. Abundant fall transient passing over, alighting casually; four records, August 21, 1919 to October 2, 1919 (Bicknell).

New York State. Now completely extirpated as a summer resident, except in northern Westchester County; formerly common throughout.

CENTRAL PARK. Casual visitor, the rarest member of the family; May 15, 1901 (Chubb); May 3, 1911 (Griscom and many others); May 14, 1921 (Griscom); August 27, 1921 (Griscom); August 28 and September 11, 1922 (Griscom).

BRONX REGION. Formerly a common summer resident, the last pair nested at Throg's Neck in 1909 (Griscom); now an uncommon transient, May 9, 1916 (L. N. Nichols) to June 9, 1920 (L. N. Nichols); casual April 19, 1909 (E. G. and L. N. Nichols); frequently heard flying over in August.

New Jersey. Still a common summer resident in the rural districts. Near New York City it still nests on the Newark meadows near Elizabethport (Urner), near Ash Swamp and Mt. Bethel (Miller and others) and a single pair on the Overpeek meadows near Leonia (Weber). Casual as late as October 22, 1922 on the Newark Marshes (Urner).

ENGLEWOOD REGION. A single pair still nests on the meadows south of Leonia (Weber); otherwise a rare spring and abundant fall transient; May 5, 1906 (W. H. Wiegmann) to June 8, 1909 (Griscom and LaDow); July 17, 1887 (Chapman) to October 12, 1916 (Weber) and October 15, 1922 (Hix); rarely seen after September 25.

COWBIRD (*Molothrus ater*)

The parasitic habits of the Cowbird make it one of our least liked and most unattractive birds. The brief sketch in Chapman's Handbook is a brilliant expression of this bird's characteristics and the feelings aroused in the student. It is conspicuous for a short time in spring only. Later in the summer small wandering flocks are occasionally encountered. In the fall Cowbirds roost with the Redwings and Grackles in our larger marshes, but their numbers are relatively inconspicuous, and they are easily overlooked. On rare occasions very large flocks are seen roaming through some field or roadside pasture. Unless, therefore, one goes to just the right places, it is possible to be in the field an entire fall without recording this species. Nevertheless it must be called a common summer resident throughout the area, arriving about the middle of March, remaining until November, or occasionally in some numbers until Christmas. It is rarely recorded in midwinter.

Long Island. Common summer resident, rare in midwinter. (February 27) March 10 to December 28.

ORIENT. Common summer resident, frequently seen in winter; February 22, 1914 (Mrs. Frank D. Smith) to November 22, 1920.

MASTIC. Fairly common summer resident, occasionally lingering in the fall to December 28, 1919.

LONG BEACH. Found breeding by Bicknell in 1921, who also has July records for two other years. It is consequently of great interest that there are only three May records (Bicknell) and none earlier. Rare transient in the fall, October 1, 1918 (Bicknell) to October 29, 1911 (Griscom); flock seen January 1, 1892 (L. S. Foster and A. H. Howell).

New York State. A common summer resident in the country districts, but uncommon and decreasing near the city. I know of no midwinter records.

CENTRAL PARK. Rare visitor on migration, ten records in the last twenty-one years; April 14, 1901 (Chubb) to May 15, 1913 (Griscom); October 6, 1911 (Hix) to November 9, 1907 (Griscom).

BRONX REGION. Uncommon summer resident, decreasing; no midwinter records; March 13, 1919 (L. N. Nichols) to November 15, 1916 (L. N. Nichols) and January 3, 1919 (C. L. Lewis and E. G. Nichols).

New Jersey. Absent in the heavily wooded areas of the northwestern sections, locally uncommon in the suburban districts, otherwise a common summer resident. The earliest spring arrival date before me is March 2, 1919 near Plainfield (Miller). There are scarcely any midwinter records.

ENGLEWOOD REGION. Uncommon summer resident, common in spring, often abundant in fall; March 13, 1921 (Griscom and Janvrin) to December 5, 1915 (J. T. Nichols) and December 25, 1902 (Chapman).

RED-WINGED BLACKBIRD (*Agelaius phoeniceus*)

A summer resident distributed throughout this territory, abundant in the larger coastal marshes, and present in every small swamp or marsh. The bird arrives anywhere from the middle of February to the middle of March, depending upon the season. Inland it is rarely seen after November 15, but in the coastal marshes lingers frequently till Christmas, and is by no means rare in midwinter. Observation in Central Park shows that transients are passing through until the middle of May and rarely arrive before April 10.

Long Island. Abundant summer resident, February 19 to November 15 (December 25).

ORIENT. Common summer resident, occasional in winter, February 21, 1912 to November 20, 1912; average arrival March 1.

MASTIC. Abundant summer resident.

LONG BEACH. A summer resident, February 24, 1921 (C. H. Lott) to November 27, 1918 (Bicknell).

New York State. Abundant summer resident.

CENTRAL PARK. Rather rare transient in spring, most of the records single females in late April or early May; March 22, 1910 (Anne A. Crolus) and April 10, 1912 (Griscom) to May 15, 1915 (Hix); seldom alighting in the fall, August 25 1913 (Griscom) and October 29, 1907 (Griscom) to December 7, 1901 (Rogers). Flocks of Blackbirds are constantly passing

over in fall in late October and November, but they cannot be specifically identified.

BRONX REGION. Common summer resident, February 21, 1909 (Griscom) to December 31, 1914 (Griscom); occasional in winter.

New Jersey. Abundant summer resident, occasional in winter near the coast and the Hudson River, rare further inland. Only two winter records for Plainfield (Miller).

ENGLEWOOD REGION. Common summer resident, February 22, 1909 (F. M. Chapman) to November 22, 1913 (J. T. Nichols); uncommon in winter.

MEADOWLARK (*Sturnella magna*) Fig. 23

A common permanent resident on Long Island, especially on the salt marshes. A few birds winter regularly in the Hackensack Meadows and other localities near the coast. Further inland a common summer resident in pasture or meadowland, rare or unknown in winter. Abundant on migration in March and October.

Long Island. Permanent resident throughout, but in reduced numbers in winter.

New York State. Permanent resident throughout, but in greatly reduced numbers in winter inland.

CENTRAL PARK. Very rare casual visitor, six fall records in fifteen years, October 9, 1910 (Hix) to November 4, 1917 (E. G. Nichols); only one spring record, May 1, 1913 (Griscom).

New Jersey. A permanent resident near the Hudson River Valley, wintering regularly as far inland as Plainfield (Miller). Rare or unrecorded further inland. Common throughout as a summer resident, often abundant in migration.

ENGLEWOOD REGION. Common; winters and breeds in reduced numbers; obvious migration as early as March 6, 1921 (Griscom).

ORCHARD ORIOLE (*Icterus spurius*)

The Orchard Oriole is a locally common summer resident throughout the area, with a marked preference for gardens and orchards in the more rural sections. Its exact distribution is quite erratic and inexplicable, and will be given in



Photograph by A. A. Allen

Fig. 23. Meadowlark

detail below. If anything, it arrives a few days later than the Baltimore Oriole and is one of the very first birds to leave, rarely seen after July 15. Immature birds or dull females of the two Orioles are sometimes confused. The Orchard Oriole is distinctly olive green above, not brownish orange, and is dull yellow below, never with an orange shade. As a result the difference in color above and below is much less contrasted. The throat is either solid black or entirely yellow, never spotted with blackish. It is one of our finest songsters, the rich continuous warble utterly different from and greatly superior to the whistled disconnected phrases of its relative. Its chatter is, if anything, even harsher and more prolonged.

Long Island. A local summer resident, so known only at west end and north shore; (May 1) May 6 to August 18.

ORIENT. Rare summer resident, May 6, 1916 (Mrs. Frank D. Smith) to August 18, (Mabel R. Wiggins).

MASTIC. Uncommon transient in spring.

LONG BEACH. No record.

New York State. Fairly common summer resident on Staten Island (Chapin), chiefly on the coastal plain. Rare and irregular in the Bronx Region. Common at Ossining (Fisher), where it has been reported as late as August 6.

CENTRAL PARK. Rare transient, May 11, 1911 (Griscom) to May 25, 1904 (Hix); a pair bred in 1908; no fall records.

BRONX REGION. Breeds regularly near Baychester (L. N. Nichols); bred at Rye in 1887 (Dwight); a pair bred at Riverdale in 1917 (Griscom); almost unknown as a transient; May 8, 1919 (L. N. Nichols) to July 13, 1919 (L. N. Nichols).

New Jersey. A summer resident with an inexplicable distribution. Along the southern boundary of the area it is commoner than the Baltimore Oriole. Only a few scattered pairs are reported in the whole area bounded by the Hudson River and a north and south line running approximately twenty miles inland. Thence increasing westward and northwestward, but absent from the Kittatinny Ridge, the Wawayanda Plateau and Bearfort Mountain. In the lowlands of Sussex and Warren Counties it is quite as common as the Baltimore Oriole (Griscom, Hix, and others), and along the Delaware River from Dingman's Ferry to the State line it is unquestionably commoner (Griscom). Its distribution is surprisingly

paralleled by that of the Turkey Vulture. As a transient it is rare in spring and unrecorded in fall.

ENGLEWOOD REGION. A pair breeds at Nordhoff (Chapman and Griscom) and near Demarest (Bowdish); almost unknown as a transient, no fall records; May 6, 1888 (Chapman) to August 6, 1887 (Chapman).

BALTIMORE ORIOLE (*Icterus galbula*)

A common and familiar summer resident throughout the settled and cultivated sections of the territory, sometimes found in the depths of the woods during migration. It arrives with great regularity on the first May wave, and departs about the middle of September. Of accidental occurrence in winter. Dates only given below.

Long Island. Common summer resident, April 28 to September 7, casually to October 7 and October 25; one recorded in Prospect Park, November 25, 1909 (E. Fleischer).

ORIENT. May 1, 1914 to September 14, 1914; average May 7 to September 8.

LONG BEACH. Rare transient; May 8, 1919 (Bicknell) to May 20, 1920 (Bicknell); September 1, 1919 (Bicknell) to September 21, 1916 (Bicknell); over ten birds on September 2, 1920 (Bicknell).

New York State.

CENTRAL PARK. Common summer resident, May 1, 1899 (Chubb) to September 21, 1909 (Griscom). Dr. F. M. Chapman at a meeting of the Linnæan Society of New York on January 23, 1894 reported "one around the Museum several times recently." An adult male, discovered November 14, 1909 in the Ramble (Griscom), spent the winter. It fed greedily on the suet at the feeding station maintained by Miss Crolius, and seemed perfectly well, barring a frost-bitten foot during a cold wave the end of January. It began to sing the third week in March and departed the night of April 20, 1910. I know of no better illustration in the bird world to show that food is of greater importance than absolute temperature.

BRONX REGION. April 27, 1914 at Port Chester (Spofford); May 4, 1922 (W. C. Starek) to September 15, 1921 (Griscom).

New Jersey. Recorded as late as October 3, 1920 near Elizabeth (Urner). One picked up unable to fly at Hackensack, February 1, 1917 and sent to Mr. B. S. Bowdish.

ENGLEWOOD REGION. May 4, 1912 (Griscom) to August 31, 1886 (Chapman).

RUSTY BLACKBIRD (*Euphagus carolinus*)

The Rusty Blackbird is generally an uncommon spring and common fall transient, with a migration period which is practically the same as that of the Red-wing. At a distance it cannot be separated positively from the latter, and nearer by it is easily mistaken for a Grackle, unless the tail is distinctly seen in relation to the total length. Its crazy, squeaky whistle is unmistakable, and rises above the Blackbird medley in spring. On the ground it walks with an absurd stagger, like a toddling infant in a hurry to get somewhere, appreciably different from the stately tread of a Grackle or the more even glide of a Red-wing. It occurs in winter more frequently than any other Blackbird.

Long Island. Common transient; (February 16) March 14 to May 11 and casually to June 3; October 5 to Christmas.

ORIENT. A transient, common in fall only, sometimes in winter; March 1, 1904 to May 11, 1914; October 6, 1914 to November 30, 1920.

MASTIC. Fairly common transient in spring, noted as early as February 16, 1918; observation in fall defective; may winter occasionally.

LONG BEACH. Casual on migration, only five records; April 2, 1914 (Bicknell) to May 5, 1912 (Griscom); October 29, 1911 (Griscom).

New York State. A generally common transient throughout, occasional in winter.

CENTRAL PARK. Uncommon spring transient, occurring chiefly the first week in May; March 13, 1904 (Hix) to May 10, 1922 (Mrs. Meade); rarely alighting in the fall, September 27, 1904 (Hix) to November, 1908 (Anne A. Crolius).

BRONX REGION. A common transient, several midwinter records; February 12, 1909 (Griscom) to May 3, 1916 (L. N. Nichols); October 2, 1915 (E. G. Nichols) to November 28, 1915 (L. N. Nichols).

New Jersey. An uncommon spring, common fall transient, occurring in winter more frequently than any other Blackbird. Noted as late as May 18, 1920 near Plainfield (Miller and Rogers).

ENGLEWOOD REGION. Uncommon spring, common fall transient, occasional in midwinter; February 27, 1915 (N. F. Lenssen) to May 9, 1914 (Griscom); October 2, 1904 (Hix and Parmelee) to December 19, 1915 (J. T. Nichols).

PURPLE GRACKLE (*Quiscalus quiscula quiscula*)

A common summer resident throughout the area, nesting in small colonies, and roosting in vast numbers in some swamp or marsh in the fall. The Grackle undoubtedly earns the distinction of being the first land bird to arrive in spring. There is little definite information about its fall departure, owing to the absence of specimens, and the great difficulty of distinguishing it from the Bronzed Grackle, but no birds have been shot later than early November. Grackles frequently linger until January and occasionally winter. The few specimens taken have all been Bronzed Grackles, and as this is the northern bird it is the one most likely to winter. In spite, therefore, of the numerous published reports of Purple Grackles in winter, I have yet to see a specimen of this race taken at that season.

Long Island. Abundant summer resident, arriving as early as February 15, and regularly the first week in March. No specimen taken later than November 9.

ORIENT. Early arrival February 15, 1908; average March 3. Mr. Latham writes that Grackles are frequently observed in winter, listing them under this race. They are probably the next.

MASTIC. Fairly common summer resident, this or the next race irregularly abundant on migration.

LONG BEACH. From March 5, 1920 (C. H. Lott) to June 21, 1917 (Bicknell), frequently in May. Mr. Bicknell also sends the following interesting communication: "A pair of Grackles nested . . . in 1921. . . Every time I saw the male I made it out to be the Bronzed Grackle, . . . but I never saw it so perfectly as to cover the needs of a record extending its coastwise breeding range." That a lone pair of any Grackle should nest on Long Beach is quite remarkable.

New York State. A common summer resident throughout. No satisfactory information on its departure in fall. Recorded November 8 at Ossining (Fisher).

CENTRAL PARK. A common summer resident. Earliest arrival February 13, 1909 (Anne A. Crolius). Nesting birds depart early in September, and there is frequently a hiatus of nearly a month before transients from further north appear in early October. The race of these birds has never been determined.

BRONX REGION. Earliest arrival February 26, 1909 (Griscom).

New Jersey. A common summer resident throughout. I have seen no specimen shot later than October 27, but it must certainly linger later than this.

ENGLEWOOD REGION. Several breeding colonies. Grackles are abundant on migration. A flock of fifty birds seen February 11, 1911 (Griscom and LaDow) were unquestionably spring arrivals.

BRONZED GRACKLE (*Quiscalus quiscula xeneus*)

Much remains to be determined about this bird in our area, and this can only be done by collecting specimens. The available evidence, however, would seem to show that the Bronzed Grackle is a regular transient, arriving later than the Purple Grackle in the spring and remaining into April. In the fall the large flocks are probably mostly this race, and winter birds almost certainly so. It surely is not safe for students to call all birds Purple Grackles, except when occasional individuals are positively determined otherwise, as has long been the custom. These statements are based principally on the careful work done by Dr. L. B. Bishop at New Haven. Here adequate collecting has proved that the Bronzed Grackle is an irregular spring migrant and abundant in the fall, "far outnumbering any other if not all other species [of Blackbirds] combined." It is also of interest to note that all winter Grackles *collected* in Connecticut are Bronzed. This is so near our area that it would be astonishing if the bird's status changed radically twenty-five miles or so further south. Wintering Grackles shot by M. S. Crosby in Dutchess County, N. Y., also prove to be *xeneus*.

Dr. Dwight has recently critically studied the large series of Grackles in the American Museum, and I have had the advantage of going over this material with him, and of benefiting by his careful determinations. It is by no means finally settled whether the two Grackles are species or races, and whether the intermediates are intergrades or hybrids. However this may be, our territory is unquestionably, in part, in what may be termed the zone of intergradation. About fifty percent of the breeding birds on Shelter Island show more or less *æneus* blood, and such birds have been taken as far west as Astoria. Just outside the extreme northwestern limits of our area, at Port Jervis, N. Y., a small percentage of the breeding birds show a slight infusion of *æneus* blood also. The number of specimens available show that these intermediate types are common transients in other parts of the area.

It is the common maxim that subspecies are indistinguishable in life, and this is unquestionable when the specimen in the hand can only be identified by careful comparison with large series. This is not the case with the Grackles, however, where the differences are of kind rather than degree. In fact any one who has studied the group can name an adult male Grackle taken locally off-hand without any comparison being necessary. In the Purple Grackle the brilliant color of the head and neck gives way to a color which varies from *brassy green* to *violet-purple*, *always with bars of some metallic color*. In the Bronzed Grackle the colors of the head and neck give way abruptly to a *uniform golden bronze*, *absolutely unbroken with bars*, a totally different color, and in much sharper contrast with the head and neck than is the case with the Purple Grackle. The commonest type of intermediate may be briefly described as strongly approaching the Bronzed Grackle in the ground color of the back, etc., but at least a few metallic bars are always present. In our larger parks and suburbs the breeding Grackles are extraordinarily tame, and

walk about on the lawns in bright sunlight, often less than fifty feet from the observer. They are sometimes joined in spring by transient intermediates or Bronzed Grackles. In such circumstances the ornithologist who cannot recognize the three types really merits the pity of his colleagues! Students, however, must bear in mind that all is not as easy as it sounds. The colors being metallic, *brilliant* and *direct* sunlight is *absolutely essential*. On a dull day or with a bird in shade, the ground color is very likely to appear bronzy, and the metallic bars on the back, even if present, would be invisible. While a strong infusion of *æneus* blood is comparatively easy to determine, to prove beyond question that metallic bars are absent in a Bronzed Grackle, is far more difficult than establishing their presence in a Purple Grackle or an intermediate bird. From this discussion it will be seen that identifying a Grackle subspecifically depends not so much on a keen sense of color discrimination, as sound knowledge based on a study of museum specimens plus exceptionally favorable circumstances of observation. The writer has probably given as much attention to identifying Grackles in life as any other local student. Daily observation for twelve springs of the Grackles in Central Park has yielded *three* records of the Bronzed which he regards as absolutely satisfactory, though every year he notices Grackles with some *æneus* blood. I regard these figures not as establishing the local rarity of this Grackle, but as proving the extreme difficulty of obtaining an observation which I find personally satisfactory.

The records cited below refer to *typical æneus* only. I can see no point in recording intermediates which are fifty-one percent plus *æneus* as *æneus*.

Long Island. Status imperfectly known. Birds recorded in Dutcher's Notes as captured on March 13 and March 29 prove not to be typical *æneus*. It is exceedingly doubtful if the specimen recorded by Braislin as shot by Worthington on Shelter Island, June 16, 1886 is really typical *æneus*. Numerous June specimens col-

lected there subsequently prove to be intermediates. Such birds have been taken as far west as Astoria, and it is more than likely that the bird found nesting at Long Beach by Mr. Bicknell was an intermediate. Only two typical Bronzed Grackles have been collected on Long Island, both by Dr. Braislin, on October 15, 1901 and November 17, 1900.

ORIENT. Recorded by Mr. Latham, November 15, 1908.

He reports Grackles as frequent in winter, which are probably this subspecies.

New York State. Perhaps a regular transient at least in the fall. Dr. A. K. Fisher reports it as a fairly common transient at Ossining in April and November.

CENTRAL PARK. I have three records of the Bronzed Grackle which I regard as absolutely satisfactory. In every case the bird was on the ground with Purple Grackles, and at a maximum distance of twenty-five feet; April 4, 1912; April 8, 1913; April 1, 1921. Mr. Hix also supplies two records, where the conditions were faultless, March 13, 1904 and March 1, 1914. I see intermediate birds every spring. I have never been able to obtain a satisfactory observation of the transient Grackles in the fall, but birds have been seen by numerous observers in December and there are several winter records.

BRONX REGION. Observed under faultless conditions on March 8, 1913 (Griscom); birds seen January 17, 1918 and February 9, 1922 by L. N. Nichols were probably this subspecies.

New Jersey. Status imperfectly known, but probably a regular transient, at least in fall. Numerous winter records probably belong to this race. I have seen two specimens; Morristown April 8, 1887 (Thurber) and March 26, 1887 (Thurber). Intermediates are apparently common transients. Mr. Miller informs me that he has twice collected Bronzed Grackles near Plainfield in November, one date being November 8, 1904, and Mr. Urner shot Bronzed Grackles at Elizabeth years ago, the records of which have been destroyed by fire.

ENGLEWOOD REGION. A single bird seen with Purple Grackles under faultless conditions March 21, 1920 (Griscom). A large flock of transients watched for half an hour on April 16, 1922 (Griscom and J. M. Johnson). The few birds really well seen were apparently Bronzed Grackles. There are several December and January records of individuals or flocks, which probably belong here.

EVENING GROSBEAK (*Hesperiphona vespertina*)

This northwestern species is apparently extending its winter range to the eastward. The phenomenal incursion of 1890, now a matter of history, barely reached our limits. The second appearance of the Evening Grosbeak was in the winter of 1910-11, when it was recorded from several localities in northern New Jersey and Westchester County. Since then it has reached New England every year, and has occurred in this territory during the winters of 1912-13, 1915-16, 1916-17, 1918-19, and 1919-20. It must be classed as an irregular winter visitant, occurring much more frequently than the Pine Grosbeak or White-winged Crossbill. No attempt has been made to cite all more recent records.

Long Island. A single female seen at Forest Park on January 8, 1911 by Miss Mary W. Peckham; February 4 to April 9, 1919 at Miller Place (Helme); flock of twenty at Forest Hills, February 8, 1920, and one specimen brought to L. S. Crandall at the Bronx Zoological Garden; about twenty at Amityville, February 23, 1920 (J. T. Nichols) and an adult male in the same place February 26, 1920 (Griscom and Janvrin); a flock at Douglaston, April 26, 1920 (G. Clyde Fisher).

New York State. Reported at Port Chester, January 8 to 9, 1911 and January 29, 1913 (Cecil Spofford); first on Staten Island, January 9 to March 12, 1916 (H. K. Decker and others).

BRONX REGION. November 13, 1915 (R. S. Williams) to February 15, 1916 (Lee S. Crandall) in the Zoological Garden; also February 8, 1920 (E. G. Nichols) to April 3, 1920 (L. S. Crandall).

New Jersey. Near Summit March 6, 1890 (W. O. Raymond); Andover, Sussex Co., December 13, 1910 (Blanche Hill); Newton, Sussex Co., January 6 to February 5, 1911 (Miss Kanouse and S. D. Inslee in Bird-Lore); Plainfield, January 29 to March 5, 1911 (W. DeW. Miller and others); Englewood in spring of 1916 (several observers). In the winters of 1916-17, and 1919-20 reported from numerous localities. The earliest arrival date is December 16, 1916 at Morristown (R. C. Caskey), the latest date is April 15, 1920 at Ridgewood (Miss F. M. Bunce).

ENGLEWOOD REGION. First recorded March 24, 1916 by Miss Ina C. Dewitt; December 21, 1916 (Weber) to April 11, 1917; February 15 (Rogers) to March 5, 1920 (Bowdish).

PINE GROSBEAK (*Pinicola enucleator leucura*)

The Pine Grosbeak is a very rare and irregular winter visitant. There have been ten marked flights in the past ninety-six years, the last in the winter of 1903-04. The last eighteen years is the longest interval between flights of which I have any record. During this period only a few small flocks or single stragglers have been reported, chiefly from extreme northwestern New Jersey and eastern Long Island. Our territory seems just a little too far south, as Pine Grosbeaks reach Dutchess County, New York and southern Connecticut much more frequently than the vicinity of New York City.

Long Island. Very rare and irregular winter visitant, sometimes abundant, November 1 to March 14, 1904 at Miller Place (A. H. Helme). Since that year stragglers have been recorded at Sand's Point, November 23, 1918 (Laidlaw Williams) and Garden City, December 1 and 3, 1921 (M. S. Crosby and J. T. Nichols).

ORIENT. Rare and irregular winter visitant, November 1, 1903 to February 28, 1904. Stragglers have been recorded during three winters since the last great flight.

MASTIC. No record.

LONG BEACH. A single bird in the *Rosa rugosa* bushes at Point Lookout in the early winter of 1919 was described unmistakably to Mr. Bicknell by C. H. Lott.

New York State. Recorded at Ossining 1869, 1874-75, 1884 (Fisher) and 1896 (L. S. Foster).

CENTRAL PARK. Unknown since the winter of 1903-04, when it appeared on November 12 (Rogers).

BRONX REGION. Abundant at Riverdale during the early part of 1884, remaining until March 23 (Bicknell); no observers in the region during the last great flight; January 6, 1917 (L. N. Nichols).

New Jersey. Very rare and irregular, but apparently occurring more frequently in the extreme northwestern section. Otherwise practically unrecorded since the winter of 1903-04. The only

records before me are, near Plainfield December 31, 1916 to February 11, 1917, never more than two birds (Miller); and a flock near Englewood December 23, 1906 (Rogers).

ENGLEWOOD REGION. Very rare winter visitant; October 25, 1903 (Chapman) to January 9, 1904 (Rogers); December 23, 1906 (Rogers).

HOUSE SPARROW (*Passer domesticus*)

Unfortunately a common permanent resident in all suburban sections, and present even in the wildest parts of the area, where there are houses or barns. The House Sparrow seems noticeably less abundant in the City and some of the suburbs compared with ten years ago. Perhaps the competition with the Starling and the decrease in the horse are factors. Partial albinism is frequently observed.

PURPLE FINCH (*Carpodacus purpureus*)

The Purple Finch is an irregular transient in spring, usually abundant in fall, and is decidedly rare in winter. It breeds only on Long Island, where it is very local. It is astonishing that it should not nest in northern New Jersey, where conditions in many sections are quite similar to parts of New England, where it is a common summer resident. At long intervals the Purple Finch is virtually absent in this territory for nearly a year, due to its wintering in unusual numbers further north.

Long Island. Regular but very local summer resident, rare in winter; fairly common transient.

ORIENT. Rare visitant, September 10, 1910 to May 25, 1908.

MASTIC. Uncommon; breeds; may winter.

LONG BEACH. Rare in spring; April 17, 1918 (Bicknell) to May 11, 1922 (Bicknell); thirteen fall records, September 17, 1914 (Bicknell) to November 3, 1914 (Bicknell).

New York State. No definite breeding record, and very few winter records. There are several summer records of juvenal birds.

CENTRAL PARK. Uncommon spring, common fall transient; April 11, 1922 (Griscom) to May 17, 1911 (Anne A. Crolius);

September 15, 1921 (Griscom) to November 16, 1907 (Griscom); two winter records; one summer record, a juvenal male collected July 6, 1888 (Jenness Richardson).

BRONX REGION. A transient in varying numbers, rarely wintering; September 23, 1914 (Hix) to May 11, 1919 (L. N. Nichols).

New Jersey. There is no definite evidence that this species has ever bred in our section, but those seen in June 1890 on High Point (Chapman) may have been breeding, though none were seen there in 1922 (Griscom). The summer records for Plainfield and Ridgewood are not breeding records. The Purple Finch winters with considerable regularity near Plainfield and near Elizabeth (Urner); elsewhere it seems rare and irregular at this season.

ENGLEWOOD REGION. Common transient, uncommon in winter; March 13, 1921 (Griscom) to May 17, 1914 (Griscom); September 10, 1910 (Weber) to November 11, 1886 (Chapman) two summer records, June 6, 1886 (Chapman), and July 17, 1887 Chapman).

AMERICAN CROSSBILL (*Loxia curvirostra minor*) Fig. 24

The most erratic of our local birds, its status defying the groupings of the ornithologist. It can best be described as a rare and irregular visitant in fall, winter and spring, but it has bred casually, and has been recorded in every month of the year except August. What it does the least often is to spend the winter. The bird last occurred in numbers during the winter of 1899-1900. Since then it has been a much rarer bird in this region than the Redpoll. Like that species it is likely to turn up in the late winter after severe weather. Again it will pass us by entirely during a southward flight, but will appear the next year anywhere between March and August. While not shy, it is excessively restless, and is consequently often difficult to observe. The loud call-note in flight, a *kip, kip*, is absolutely diagnostic, and quite different from the softer *tick, tick* of the Purple Finch.

Long Island. An erratic visitant; there is one definite nesting record at Miller Place, April 10, 1883 (Helme); September 17 to June 3. Much rarer at the western end of the island, where it was recorded in the winter of 1919-20.



Fig. 24. Red Crossbill

ORIENT. Irregularly common winter visitant, September 17, 1908 to March 26, 1914.

MASTIC. Irregular in the fall; recorded November 1, 1919.

LONG BEACH. Casual; November 9, 1919 (Willard G. Van Name).

New York State. An irregular visitant, recorded at Ossining in almost every month (Fisher); one breeding record.

CENTRAL PARK. Rare and erratic visitant, unrecorded in the last thirteen years; May 12, 1887 (Jenness Richardson); January to May 4, 1895 (Louis Gillett); spent the winter of 1895-96, (Chapman); early April, 1899, (Chubb and Rogers); March 7, 1904, (Carlton Schaller); early March, 1909 (Anne A. Crolus).

BRONX REGION. Abundant at Riverdale from November 3, 1874 to May 10, 1875, the nest and eggs found on April 22 (Bicknell); not recorded since December 28, 1908 (Griscom and LaDow).

New Jersey. Rare and irregular; reported near Millington, Somerset Co. July 19, 1903 (Hix); near Lake Wawayanda, June 5, 1909 (Rhoads). I do not know any locality where this bird has been seen in more than three years during the last ten.

ENGLEWOOD REGION. Rare and irregular winter visitant, November, 1899 (Chapman) to June 18, 1910 (Bird-Lore migration tables). Only seen during three seasons in the last twelve years.

NOTE.—Mr. A. C. Bent has recently described the Red Crossbill of Newfoundland as *L. c. percna*, differing chiefly in the larger size, particularly of the bill. During the winter of 1919-20 it occurred south to Massachusetts and Washington. On February 23, 1920 Mr. J. T. Nichols saw at least one large-billed bird among a flock of others at Amityville, Long Island. He sent a sketch and a detailed account to Mr. Bent, who was confident that his bird was *percna*. Collectors should be on the look-out for this race, the validity of which still remains to be determined by the A. O. U. Committee.

WHITE-WINGED CROSSBILL (*Loxia leucoptera*)

This handsome Crossbill is another very rare and irregular winter visitant. I have found evidence of fourteen marked flights in the last ninety-six years, so that this species must be regarded as slightly less rare than the Pine Grosbeak.

Like that species a few stragglers have been reported in "off years," chiefly at the extreme eastern end of Long Island. The White-winged Crossbill occurred in great numbers in the winter of 1899-1900. There was also a marked southward flight in the winter of 1916-17, but the local crop of cones was particularly low that year, so that while the bird reached Washington, D. C., it skipped this region almost entirely, to the great chagrin of local students. The bird is heard in this vicinity so seldom, that students are not really acquainted with its diagnostic notes. Flying high overhead, it is obviously larger than a Siskin or a Redpoll, and the notes are totally different from the Red Crossbill. Its commonest note is a rattle or chatter very like the Redpoll, but much louder, more prolonged, and less hoarse. Another common note is a sweet, whistled *twee*, sometimes given in couplets, which is very like the familiar Goldfinch call, but it lacks the rising inflection at the end. When a flock is quietly feeding, there is also a note which sounds like a Junco singing very badly and hoarsely.

Long Island. Very rare and irregular winter visitant, October 25 to February 28. Abundant in the winter of 1899-1900. Since then only one lone individual has been recorded from the island, barring stragglers at Orient.

ORIENT. Rare and irregular winter visitant; October 28, 1908 to February 28, 1909.

New York State. Practically unknown since the winter of 1899-1900; reported as early as October 29 at Ossining (Fisher) and as late as May 29, 1900 at Scarboro (Fuertes and Gerald Thayer). Three birds on Staten Island, January to March, 1917 (Rogers and others).

CENTRAL PARK. Not recorded since the winter of 1899-1900.

BRONX REGION. Common at Riverdale November 3, 1874 to May 10, 1875 (Bicknell); a few birds in the Zoological Garden, December 17, 1919 to February 8, 1920 (Lee S. Crandall).

New Jersey. Almost unknown since the winter of 1899-1900; apparently no records during the winter of 1916-17; a single bird near Plainfield, December 28, 1919 (Miller).

ENGLEWOOD REGION. Recorded February 21 to March 1, 1900 (Chapman); a small flock December 23, 1906 (Rogers).

REDPOLL (*Acanthis linaria linaria*)

An irregular winter visitant, often abundant, occurring on an average about twice in five years. Seldom arrives before January. Its rattling call-note is diagnostic. It was abundant during the winter of 1919-20.

Long Island. November 18, 1889 (Helme, Miller Place) to March 31.

ORIENT. Irregularly common, December 1, 1906 to March 12, 1912.

LONG BEACH. Rarely occurs on the beach during its visitations; recorded by Bicknell, Griscom and J. T. Nichols from December 24, 1916 to March 11, 1920.

New York State. Recorded as late as April 29, 1900 at Scarborough (Fuentes and Thayer).

CENTRAL PARK. Casual visitor, straggling individuals occurring in years when the species is particularly common. November 10, 1901 (Rogers) to February 2, 1909 (Griscom).

BRONX REGION. November 9, 1878 (Bicknell) and December 31, 1910 (Hix) to March 24, 1888 (Dwight).

New Jersey. Extreme dates for our section are December 11, 1910 at Morristown and April 18, 1888 ("Northern New Jersey," Bird-Lore migration tables); casually as early as October 26, 1919 near Elizabeth (Urner).

ENGLEWOOD REGION. Apparently rarer here than at many other points in the region; December 23, 1906 (Rogers) to March 17, 1917 (Weber).

GREATER REDPOLL (*Acanthis linaria rostrata*)

Exact status unknown. This race is practically indeterminate unless collected and carefully compared and measured. Very few specimens have been taken, but it may easily have been overlooked. It is sometimes common on the Massachusetts coast a little further north.

Long Island. Eaton states that Worthington has collected several specimens on Shelter Island; one of these now in the Ameri-

can Museum was collected on February 11, 1879. It was erroneously determined by both Worthington and Dutcher.

New York State. Collected at Ossining February 12 and 13, 1883, and recorded by Fisher.

HOLBÖLL'S REDPOLL (*Acanthis linaria holboelli*)

An accidental visitant from the Arctic. A specimen taken at Miller Place, Long Island, March 22, 1888 (A. H. Helme) has recently been correctly determined by Dr. Dwight, and is now in his collection. This is the third record for New York State, and the first for Long Island.

HOARY REDPOLL (*Acanthis hornemanni exilipes*)

An accidental visitant from the Arctic. Dr. Dwight collected a young male in Van Cortlandt Park, New York City, on March 24, 1888. Its proper identity was only recently discovered by him. This is the first specimen to be taken in New York State, and is apparently the southernmost capture in America.

AMERICAN GOLDFINCH (*Astragalinus tristis*)

A common permanent resident, but always in reduced numbers in winter, sometimes locally absent. There is often a marked spring migration, flocks arriving with great regularity the third week in April.

LONG BEACH. Uncommon transient; May 11, 1922 (Bicknell) and May 30, 1911 (Griscom); August 23, 1908 (Griscom) and September 1, 1919 (Bicknell); October 18, 1914 (Bicknell) to November 25, 1920 (Crosby, Griscom and Janvrin); February 23, 1920 (Bicknell).

CENTRAL PARK. Now a common spring and fall transient, formerly breeding and occasional in winter; April 5, 1907 (Hix) to May 25, 1909 (Griscom); September 17, 1921 (Griscom) to December 28, 1908 (Anne A. Crolius).

PINE SISKIN (*Spinus pinus*)

A somewhat irregular transient and winter visitant. About four years out of five the Pine Siskin arrives during the

middle of October and is common or abundant until December or occasionally later. There is a less marked return flight the next spring from late April to the middle of May. About once in ten years the bird winters in numbers; other winters it is absent or only stragglers are recorded. It has not really wintered in numbers in this territory since 1909. There is one casual breeding record. The call note, a husky *chee-yeé*, is very characteristic.

Long Island. (September 5, 1906) September 28 to May 15 and May 29.

ORIENT. Abundant in fall, uncommon in winter and spring; September 28, 1906 to May 20, 1917; average October 1 to May 10.

MASTIC. Irregularly abundant in the fall.

LONG BEACH. Often common in late October and November, rarely seen at other times; October 13, 1919 (Bicknell) to March 10, 1912 (Griscom).

New York State. Found nesting casually at Ossining May 25, 1883 (Fisher). It has arrived as early as October 1, 1883 at Ossining (Fisher).

CENTRAL PARK. Much scarcer in the Park than outside in the country; October 11, 1903 (Rogers) to November 27, 1913 (Hix); spent the winter of 1908-09, departing late in March; only three spring records, May 10, 1914 (Griscom) to May 24, 1917 (Janvrin).

BRONX REGION. A common fall transient, rare in winter, but abundant 1908-09; October 13, 1910 (Griscom) to May 6, 1909 (Griscom).

New Jersey.

ENGLEWOOD REGION. Often abundant in fall from October 13 (Rogers) to December; rarely wintering; often reappearing in spring from late April to May 17, 1914 (Griscom and others).

SNOWFLAKE (*Plectrophenax nivalis*)

A common winter visitant to Long Island, but very rare and irregular or unknown anywhere inland in our area. The great amount of white and the musical chirruping notes are diagnostic.

Long Island. Common winter visitant, often abundant on the outer beaches; (October 9) November 1 to March 26 (April 6).

ORIENT. Usually an abundant winter visitant, October 9, 1919 to April 6, 1916; average arrival November 1.

MASTIC. Fairly common winter visitant.

LONG BEACH. Regular winter visitant, often common, October 24, 1920 (Lester Walsh) to March 26, 1911 (Griscom).

New York State. Rare and irregular on Staten Island (Chapin); irregular from October 25 to March 22 at Ossining (Fisher).

CENTRAL PARK. Casual; March 5, 1904 (Carleton Schaller); March 4 and 5, 1905 (C. G. Abbott and Hix).

BRONX REGION. No record.

New Jersey. Very rare and irregular, reported from Summit, Plainfield, Morristown and the Orange Mountains. A single bird seen at Stag Lake, Sussex Co., on October 30, 1921 (Justus von Lengerke). Present on the Newark Meadows in some numbers from November 6, 1921 to March 18, 1922; otherwise only a single individual recorded (Urner).

ENGLEWOOD REGION. Very rare visitor; February 28, 1886 (Chapman); February 18, 1905 (Hix); a single bird October 30, 1921 (Chapman).

LAPLAND LONGSPUR (*Calcarius lapponicus*)

The Longspur is an irregular winter visitant to extreme eastern Long Island, but is a decidedly rare bird on the beaches near New York City, and the observer who sees it more than three or four times in five years is fortunate. The records are mostly of single birds with either Horned Larks or Snowflakes, though five spent the winter of 1911-12 at Manhattan Beach. It is purely casual inland.

The Lapland Longspur is a difficult bird to observe, as it and the two species with which it associates are excessively restless. If, however, a good view be obtained, it is absolutely unmistakable, and bears a surprising resemblance to an immature male English Sparrow. Nor is it particularly difficult to pick out a Longspur in a flock of either Larks or Snowflakes flying by. It is noticeably smaller and darker

than either, with no white in the wing. Its undulating flight is quite different from that of the Lark, and its notes are, of course, totally different. They are also distinguishable from those of the Snowflake. It has a harsh rattling *chirr*, much less musical than the corresponding note of the Snowflake, and the sweet *tee* of that species is a two-syllabled *tyee*.

Long Island. Rare winter visitant, except at the eastern end; October 18 to April 18; rare after March 15; casual August 12, 1881.

ORIENT. Irregular winter visitant, October 30, 1905 to April 2, 1908.

LONG BEACH. Rare winter visitant, November 2, 1915 (L. N. Nichols) to March 18, 1916 (Bicknell).

New York State. Casual at Ossining (Fisher).

New Jersey. To Mr. Chas. A. Urner belongs the credit of discovering this bird recently on the Newark Marshes; there are five records; February 5 and 26, 1921, November 27, 1921, January 7, 1922 (all by Urner), and March 22, 1922 (W. DeW. Miller). Otherwise reported only by Thurber from Morristown, but his collection contains no specimens.

CHESTNUT-COLLARED LONGSPUR (*Calcarius ornatus*)

An accidental visitant from the Great Plains. Two specimens have been collected on Long Island, February 16, 1889, and September 14, 1891.

VESPER SPARROW (*Poæcetes gramineus*)

The white outer tail-feathers of the Vesper Sparrow make it one of the first of our numerous sparrows to be positively identified by the beginner in bird study. It is a common summer resident in the drier fields and pastures throughout the area. It arrives the first week in April, occasionally the very end of March. Few are seen in November, but near the coast it occasionally winters, though one of the rarest Sparrows at this season.

Long Island. Common summer resident, occasional in winter; March 24, 1918 at Queens (Crosby and J. T. Nichols) to November 23.

ORIENT. Rare and local summer resident, formerly general and frequent; March 30, 1906 to December 1; occasionally winters.

MASTIC. A rare transient.

LONG BEACH. Rare visitor in spring, four records, March 30, 1919 (Bicknell) to May 13, 1918 (Hix); more regular in the fall, October 13, 1921 (Bicknell) to November 12, 1914 (Bicknell); one midwinter record, January 28, 1912 (Griscom).

New York State. Now very rare or unknown as a breeding bird near the City, but common in northern Westchester County. Very rare in winter.

CENTRAL PARK. One of the rarest casual visitors; bred formerly (Woodruff and Paine); the only recent records are April 19, 1913 (Griscom) and October 13, 1922 (Griscom).

BRONX REGION. Now very rare summer resident; a common transient; March 27, 1914 (A. A. Saunders) to November 3, 1912 (L. N. Nichols); December 29, 1918 (L. N. Nichols); January 7, 1911 (Hix).

New Jersey. Common summer resident, but very local in the suburban area. The earliest arrival date before me is March 26, 1911 near Plainfield (Miller). There is one winter record for Plainfield (Miller), one for Elizabeth (Urner), and another near Cranford (Rogers).

ENGLEWOOD REGION. Formerly common summer resident, now very local, March 27, 1921 (Griscom and Janvrin) to November 12, 1922 (Hix); two winter records, December 27, 1914 (N. F. Lenssen) and February 22, 1915 (E. Fleischer).

IPSWICH SPARROW (*Passerculus princeps*)

This large pale edition of the Savannah Sparrow is practically confined to the outer beaches of Long Island, where it is a common transient in November and March. A few birds always winter, but occasionally it is common at this season. The normal arrival is the last week in October, and few individuals are seen in April.

Long Island. Fairly common winter resident, October 12 to April 21; casually as early as September 20 and September 28.

ORIENT. Rare winter visitant, September 20, 1919 to March 10, 1913; average arrival October 25.

MASTIC. Uncommon winter visitant.

LONG BEACH. Common transient; regular, often common in winter; October 13, 1912 (Griscom) and October 26, 1921 (Bicknell) to April 12, 1917 (Bicknell) and April 21, 1912 (Griscom); casual as early as September 28, 1912 (Weber, specimen taken).

New York State. Occasional winter visitant to the beaches on the south shore of Staten Island (Chapin).

SAVANNAH SPARROW (*Passerculus sandwichensis savanna*)

This species is most likely to be mistaken for a Song Sparrow. Its nervous, jerky flight, *short tail*, and very high, fine *tsip*, should distinguish it on the wing. If seen perched, the white median head stripe, the yellow line over the eye, and the absence of a central breast spot are points which are readily observable. To my mind, however, the best character is the short tail in combination with the *slender, pink, semi-translucent legs*.

The Savannah Sparrow is a common transient throughout our area, preferring marshes, old fields and pastures. The spring migration is exactly the same as that of the Vesper Sparrow, but it starts moving south much earlier in the fall, by the middle of September at least. On the coastal marshes it frequently winters, but is unrecorded in the upland country inland at this season. As a breeding bird, this species is associated with the uplands of the Canadian Provinces and New England. It is very surprising, therefore, that it is quite unknown in similar country in our area, and does not even occur at higher levels in northwestern New Jersey. Instead it nests locally on the salt meadows near the coast, and is unquestionably increasing.

Long Island. Abundant transient, frequently wintering. Steadily increasing as a summer resident. Now known from Orient, Gardiner's Island, Mastic, the meadows at the head of Jamaica Bay (Fleischer and Wiegmann), Jones Beach and Long Beach. At the last two localities it can be positively stated that it did not nest ten years ago. On May 28, 1922 at least six pairs were found on Jones Beach, and a nest with four eggs collected as a matter

of record (Griscom). The earliest date for transients is March 26, 1922 at Baldwin Harbor (J. T. Nichols), and the normal latest date November 15.

ORIENT. Summer resident at Orient and Gardiner's Island; frequent in winter; March 1, 1904 to November 15, 1912.

MASTIC. Uncommon summer resident, common transient.

LONG BEACH. Abundant transient, frequently wintering in numbers; formerly absent in summer, but now breeding regularly.

New York State. Known only as a common transient; winter records from Staten Island only. It has been noted as arriving as early as August 28 at Ossining (Fisher).

CENTRAL PARK. Uncommon transient, but occurring every year on the "Point" in the Ramble; April 12, 1910 (Griscom) to May 12, 1918 (Janvrin); September 16, 1904 (Hix) to October 16, 1910 (Hix).

BRONX REGION. Common transient; April 1, 1917 (L. N. Nichols) to May 28, 1916 (L. N. Nichols); October 2, 1915 (E. G. Nichols) to November 5, 1910 (Hix).

New Jersey. Common transient, unknown in winter except from the Overpeck Creek Meadows. Reported as nesting at Morristown in 1887 (Thurber) and near Paterson (J. H. Clark). However it has not been found nesting anywhere in our area in many years, until Mr. Urner found a breeding pair in the salt meadows of Newark Bay in 1922. If the reports quoted above from inland localities be correct, they must be regarded as casual.

ENGLEWOOD REGION. Abundant transient; March 16, 1912 (Griscom) to May 18, 1919 (Griscom and W. T. Helmuth); September 7, 1908 (Hix) to December 9, 1911 (Griscom); there are three winter records.

BAIRD'S SPARROW (*Centronyx bairdi*)

Accidental visitant from the West. A single specimen was collected at Montauk, Long Island on November 13, 1899 (A. H. Helme).

GRASSHOPPER SPARROW (*Ammodramus savannarum australis*)

A common summer resident of dry fields and old pastures, locally absent near New York City and in parts of north-

western New Jersey. No bird is more rarely observed as a transient in localities where it does not breed. Terrestrial and inconspicuous, it is completely overlooked by those unacquainted with its insect-like song, and the beginner has great difficulty in getting a satisfactory observation. The bird arrives the last week in April and lingers into October, but it is rarely observed after the song season is over.

Long Island. Very common summer resident; (April 9) April 21 to October 25.

ORIENT. Common summer resident; April 9, 1919 to October 12, 1916.

MASTIC. Fairly common summer resident.

LONG BEACH. Very rare transient; May 2, 1918 (Bicknell).

New York State. Now breeding only on Staten Island and the northern half of Westchester County. Recorded from April 27 to October 23 at Ossining (Fisher). A specimen collected October 27, 1906 on Staten Island (Chapin).

CENTRAL PARK. Casual; a single bird recorded early in October about twenty years ago (Anne A. Crolius).

BRONX REGION. Formerly a summer resident, bred near Van Cortlandt Park in 1887 (Dwight); now a rare transient, May 5, 1918 to June 9, 1915 (L. N. Nichols).

New Jersey. Common summer resident, locally scarce or absent in the suburban section and in the higher parts of extreme northern New Jersey. The earliest arrival date is April 7, 1918 near Elizabeth (Urner); the next earliest before me is April 26, 1913 near Plainfield (Miller).

ENGLEWOOD REGION. Formerly a common summer resident, April 30, 1904 (Bird-Lore) to October 11, 1885 (Chapman); now a very rare transient, only three records in twelve years, May 4 to May 18 (Griscom).

HENSLOW'S SPARROW (*Passerherbulus henslowi*)

This shy and secretive little Sparrow is usually completely overlooked, unless its song, a feeble *flee-sick*, is known. As a result it is almost unknown as a transient, and its reputation for rarity as a summer resident is undeserved. It does, however, seem to be local, as it does not occur in many sections

where apparently typical habitats prevail. It has the large-headed, short-tailed appearance of the Grasshopper Sparrow, but the rufous brown of the back and wing-coverts contrast sharply with the olivaceous of the head and nape, and the underparts are finely and sharply streaked.

Long Island. Locally common summer resident at Mastic, and probably at Orient; a scant half-dozen records for the rest of the island, September 11, 1921 at Bridgehampton (C. Johnston) to November 20.

ORIENT. Rare transient and probably rare summer resident, recorded in summer; July 25, 1905 to September 30, 1907.

MASTIC. Fairly common summer resident, the earliest arrival date April 14, 1922.

New York State. Reported as a rare transient at Ossining, October 5 to 10 (Fisher).

BRONX REGION. Rare transient; April 4, 1915 (L. N. Nichols); April 20, 1916 (L. N. Nichols).

New Jersey. Locally common summer resident, and much more widely distributed than formerly supposed. Breeds near Morristown (Thurber), Boonton (Judd), north of Plainfield (Miller) various points along the Passaic and Dead River valleys (Miller and others), the Great Swamp (Miller), Ramapo River west of Mahwah (Griscom) and occasional throughout Warren and Sussex Counties (Griscom). Arrives the last week in April; no reliable departure dates, but certainly lingering into early October. Unreported as a transient.

NELSON'S SHARP-TAIL (*Passerherbulus nelsoni nelsoni*)

Contrary to the opinions of an older generation of ornithologists, it is perfectly possible to identify the three Sharp-tailed Sparrows in life, provided one is thoroughly familiar with Museum skins and can describe the differences from memory. To distinguish *nelsoni* is undoubtedly the most difficult, but I have collected it too many times after identifying it with glasses not to know that it can be done. The difficulty is not so much one of making out color markings, supposedly obscure, but rather a question of obtaining

a satisfactory view at close range of a shy and secretive bird. On such occasions, Nelson's Sparrow differs obviously from the ordinary Sharp-tail in being buffier below, of a deeper shade, *slightly and indistinctly streaked*, instead of having sharply defined and blackish streaks. While actually a little darker above, this difference is scarcely noticeable in life. It is known in our area as a rare transient, chiefly in the fall, associating with the other Sharp-tails on the salt meadows, and is generally wholly overlooked. What is needed is careful observation backed by a little judicious collecting. Indiscriminate or haphazard collecting will merely result in a large series of ordinary Sharp-tails, and our knowledge of the real status of the present species will not have advanced in the slightest. It is curious that there are no recent records for this bird in any of our inland marshes.

Long Island. Perhaps a regular transient in the fall; to be expected in spring. Specimens have been taken at Rockaway Beach, October 5, 1907 and October 14, 1911.

LONG BEACH. Mr. Bicknell has made a special study of these Sparrows and regards the present race as a fall transient. He has records from October 8, 1914, to November 11, 1920.

New York State. Regarded by Fisher as a fairly common fall transient at Ossining from September 28 to October 17. His birds were obtained mostly in the marshes at the mouth of the Croton River. Dr. Chapin has collected this species on Staten Island; October 27, 1906, several birds October 19, 1907, and May 30, 1908. This was not the result of indiscriminate collecting, but represents careful search beforehand.

ACADIAN SHARP-TAIL (*Passerherbulus nelsoni subvirgatus*)

A fairly common transient on our salt marshes, often abundant the latter half of October. Of all our small passerine birds it is undoubtedly the latest spring migrant, and the scarcity of spring records is due to this fact. The last week in May and the first few days of June represent the height of its migration, and at this time most observers are looking for Shore-birds and pay no attention to Sparrows.

It is readily distinguishable from the other two Sharp-tails. The buff of the breast and sides of the head is pale and washed out, the streaks below are faint, and above the bird is *paler* and *more uniform*, the dark crown stripes, auricular streaks and back all toned down or practically indistinguishable. As a result it has a *pale* and *gray effect*, which is striking when a bird is merely flushed and flies off over the marsh.

Long Island. Fairly common transient, probably regular in spring, but overlooked; May 29, 1921, Jones Beach (Griscom and J. M. Johnson); May 30, 1913 at Freeport (H. Thurston, specimen collected); June 5, 1920 at Mastic (J. T. Nichols and Griscom); in the fall from September 24 to November 5.

ORIENT. Uncommon fall transient; September 24, 1914 to October 22, 1919.

MASTIC. Uncommon transient.

LONG BEACH. Regular fall transient, not as yet detected in spring; October 5, 1916 (Bicknell) to November 5, 1912 (Griscom, Miller, Rogers).

New York State. Collected on Staten Island, May 30, 1908 and October 19, 1907 (Chapin). Reported as a rare transient at Ossining, September 29 to October 16 (Fisher). If these birds were correctly determined, their occurrence inland is remarkable.

New Jersey. Only one definite report in our area, a single bird on the Newark Bay Marshes May 21, 1922 (Urner).

SHARP-TAILED SPARROW (*Passerherbulus caudacutus*)

The Sharp-tail is strictly confined in our area to the salt marshes of the coast, where it is a common and characteristic summer resident, occasionally wintering. As a rule it is shyer than the Seaside Sparrow, and prefers drier situations.

Long Island. Common summer resident, occasionally wintering; April 16 to November 5.

ORIENT. Abundant summer resident, recorded in winter; April 16, 1915 to November 1, 1920; average arrival April 30.

MASTIC. Common summer resident.

LONG BEACH. Common summer resident, from April 28, 1921 (Bicknell), often remaining into November, and occasionally wintering; no March records.

New York State. Confined to those salt marshes of Staten Island and the Sound, which have not been destroyed.

BRONX REGION. Occasionally breeding on the Baychester marshes, May 9, 1916 to October 9, 1915 (L. N. Nichols).

New Jersey. Confined in our area to the salt marshes at the mouth of the Raritan River and Newark Bay, arriving as early as April 23, 1921 and sometimes wintering (Urner).

SEASIDE SPARROW (*Passerherbulus maritimus*)

Another characteristic species of the salt meadows, which is accidental in any other type of habitat. As far as coloration goes it may safely be termed the dingiest and least attractive of all our sparrows. It is less shy than the Sharp-tail, prefers the wetter portions of the marsh, and no bird can be "squeaked up" more readily. From early May to November they cannot be overlooked, but individuals frequently linger to January and occasionally pass the entire winter, singing on warm and sunny days.

Long Island. Abundant summer resident, at the western end outnumbering the Sharp-tail, but rare or unknown at the eastern end; April 22 to November and January; a specimen taken April 12, 1890 near Flatbush (Alfred Marshall).

ORIENT. Irregular summer resident at Orient, otherwise unknown in the region; May 1, 1902 to September 26, 1904.

MASTIC. Fairly common summer resident, less numerous than the Sharp-tail.

LONG BEACH. Abundant; April 28, 1921 (Bicknell) to December; numerous wintering records to April 5, 1917 (Bicknell).

New York State. Breeds on the salt marshes of Staten Island, where there are winter records. On the Sound known only from the Baychester marshes. Accidental at Ossining (Fisher).

BRONX REGION. Breeds on the Baychester marshes, May 9, 1916 to October 18, 1914 (L. N. Nichols).

New Jersey. In our area known only from the marshes at the mouth of the Raritan River and Newark Bay, where it does not seem to be at all common except in the fall migration (Urner).

LARK SPARROW (*Chondestes grammacus*)

The Lark Sparrow must be regarded as a casual visitant at the present time. There is definite evidence, however, that it is extending its range eastward, and Eaton suggested in 1910 that it might become a common bird in New York State sometime in the future. The majority of the records are recent ones, and most of them are in the summer. The bird is readily identified by its chestnut ear-coverts and fan-shaped, white-tipped tail.

Long Island. Casual; may have bred. Four published records, July, August, and November. The most recent is an adult discovered near Montauk on June 12, 1922 by Mr. J. T. Nichols.

ORIENT. Recorded August 15 to 17, and October 3, 1909 at Orient (Roy Latham).

New Jersey.

ENGLEWOOD REGION. One taken November 26, 1885 by Dr. Chapman near Schraalinburgh, now known as Dumont.

WHITE-CROWNED SPARROW (*Zonotrichia leucophrys*)

The most handsome and distinguished looking of our Sparrows is a rather rare or uncommon transient in this neighborhood. In spring it is recorded chiefly with the biggest "waves" in May, and is easily overlooked unless the observer is out daily. While singing freely, the song in my experience never attains the full power and sweetness so typical of the West, and bears a surprising resemblance to that of the Black-throated Green Warbler. In October adults are rare, and the immature bird is often overlooked in the hordes of other Sparrows. Its large size, reddish-brown bill, reddish crown and clean gray head are, however, diagnostic. The White-crowned Sparrow always has a *square-headed* appearance, quite different from the evenly rounded outline of the heads of our other Sparrows. As is usual with many of our rarer species, it is observed more frequently in Central Park than elsewhere.

Long Island. Uncommon transient; May 1 to May 30, casually as early as April 10, 1897; September 25 to November 10.

ORIENT. Uncommon transient; May 1, 1914 to May 31, 1914; October 11, 1917 (Mabel R. Wiggins) to November 10, 1909.

MASTIC. Uncommon transient.

LONG BEACH. Two spring records, May 14, 1914 and May 11, 1922 (Bicknell); uncommon in the fall, October 6, 1921 to October 24, 1918 (Bicknell).

New York State. Rather rare transient, immature birds occasionally recorded in some numbers in the fall. The latest spring date is May 28, 1907 on Staten Island (Chapin). Casual April 17, 1913 at Yonkers (G. K. Noble).

CENTRAL PARK. Uncommon transient, April 24, 1896 (L. S. Foster); May 3, 1922 (Blanche Samek and Griscom) to May 26, 1909 (Anne A. Crolius); October 1, 1911 (Hix) to October 13, 1921 (Griscom). Rarely noted before May 12 and after May 18.

BRONX REGION. Rare transient; May 7, 1922 (Starck brothers) to May 15, 1917 (L. N. Nichols); October 8, 1910 (Griscom) to November 7, 1917 (L. N. Nichols).

New Jersey. A rather rare transient, occurring chiefly at the height of the migration in spring and in the middle of October. It may prove to be commoner in the northwestern part of the area, from which I have no data.

ENGLEWOOD REGION. Rare transient; May 12, 1906 (Hix, Rogers, Wiegmann) to May 22 (Bird-Lore migration tables); September 29, 1914 (Weber) to October 20, 1907 (Hix and Rogers).

WHITE-THROATED SPARROW (*Zonotrichia albicollis*) Fig. 25

The beginner to whom all Sparrows are a puzzle and a trial will bless this conspicuously marked and abundant species. Cheerful and confiding, it occurs on migration even in the streets and back yards of New York City, and sings on sunny days throughout the winter. It arrives in the fall with the first decided drop in temperature in September. By the middle of November only the wintering flocks remain. These break up about the middle of March, and then it is often impossible to find the species locally, until the transients arrive from the South the middle of April. The last individuals retire northward with the height of the migration in May.

Long Island. Abundant transient, fairly common winter resident, particularly at the western end; September 10 to May 30.

ORIENT. Common transient, rare in winter; September 10, 1914 to May 27, 1917 (Mabel R. Wiggins); average arrival September 20.

MASTIC. Common transient, less numerous in winter; recorded May 30, 1917.

LONG BEACH. Uncommon spring, common fall transient, April 14, 1921 (Bicknell) to May 25, 1917 (Janvrin); September 27, 1910 (Griscom) to December 24, 1916 (Griscom).

New York State. Wintering commonly near the coast, rarely up the river at Ossining (Fisher).

CENTRAL PARK. Abundant transient, wintering regularly until the last three years; September 15, 1910 and September 9, 1913 (Hix) to May 29, 1907 (Griscom) and casually to July 2, 1907 (Chubb); earliest spring arrival April 4, 1913 (Griscom); now departing southward about November 15.

BRONX REGION. Common winter resident, September 14, 1921 (Griscom) to May 19, 1917 (L. N. Nichols).

New Jersey. Abundant transient throughout; common winter resident near the coast and along the southern boundary of our area, decreasing inland, and unrecorded at this season in the extreme north and northwest.

ENGLEWOOD REGION. Fairly common winter resident, abundant in migration; September 10, 1905 (Hix) to May 24, 1907 (Bird-Lore); casual June 8, 1918 (E. Fleischer).

TREE SPARROW (*Spizella monticola*)

The tinkling, twittering notes of the flocks of Tree Sparrows enliven our fields, pastures, and marshes during the winter months, and in early spring a very sweet song is occasionally heard. The chestnut crown, white wing-bars, and unstreaked breast with a central spot are all diagnostic characters. It arrives regularly the first week in November, rarely the end of October and casually earlier. In the uplands the bird usually disappears by the end of March, but in our larger marshes a few linger into April.

Long Island. Abundant winter visitant, October 9 to April 25, 1901 on Shelter Island (W. W. Worthington).

ORIENT. Common winter resident, October 20, 1914 to April 12, 1917; average arrival November 1.

MASTIC. Common winter visitant.

LONG BEACH. A few birds winter regularly, common in migration; October 27, 1912 (Griscom) to March 31, 1912 (Griscom).

New York State. Abundant winter resident. October 10 to April 27 at Ossining (Fisher).

CENTRAL PARK. Casual visitor; scattered individuals occasionally noted in fall and early spring, or even in mid-winter after heavy snow; November 11, 1907 (Griscom) to April 9, 1911 (Griscom).

BRONX REGION. Common winter resident, November 6, 1915 (Hix) to April 13, 1884 (J. Dwight).

New Jersey. Abundant winter resident. The earliest arrival date before me is October 12, 1919 near Elizabeth (Urner).

ENGLEWOOD REGION. Abundant winter resident, November 2, 1886 (Chapman) to April 26, 1914 (Griscom); rarely recorded after the first week in April.

CHIPPING SPARROW (*Spizella passerina*)

An abundant and familiar summer resident, nesting exclusively in proximity to man. Very rarely recorded in winter, and rare before early April or after the first week in November.

Long Island. Abundant summer resident, March 28 to November 23, 1919 (Hempstead, J. T. Nichols); very rare in winter.

ORIENT. Abundant summer resident, recorded in winter; March 28, 1904 to November 4, 1915; average arrival April 4.

MASTIC. Common summer resident.

LONG BEACH. Uncommon spring, common fall transient; April 10, 1917 (Hix) to May 4, 1916 (Bicknell); October 1, 1914 (Bicknell) to November 13, 1910 (Griscom); casual June 5, 1918 (Hix).

New York State.

CENTRAL PARK. Common transient, formerly a few pairs breeding regularly, one pair only in 1921, none in 1922; March 29, 1907 (Hix) to November 26, 1911 (Hix); transients arrived October 5, 1921 (Griscom).

BRONX REGION. Common summer resident, April 5, 1912 (C. L. Lewis) to November 10, 1919 (L. N. Nichols).

New Jersey. Abundant summer resident, arriving occasionally in late March at Elizabeth and Plainfield, rarely at Englewood and almost never further north and west. Two winter records at Plainfield (Miller) and two at Elizabeth (Urner). The earliest arrival date is March 11, 1917 at Elizabeth (Urner).

ENGLEWOOD REGION. Common summer resident, March 21, 1897 (Bird-Lore) to November 21, 1914 (J. T. Nichols) and December 3, 1910 (Griscom). Three winter records.

FIELD SPARROW (*Spizella pusilla*)

A common summer resident of fields and pastures throughout the area, wintering regularly and occasionally in some numbers near the coast. The first birds arrive during the middle of March, but transients are passing through up to the middle of May. The fall migration lasts from the end of September to the middle of November, when there is a marked song season.

Long Island. Common summer resident, a few in winter, March 15 to December 21.

ORIENT. Locally common summer resident, occasional in winter, March 15, 1920 to December 2, 1920.

MASTIC. Fairly common summer resident, uncommon in winter.

LONG BEACH. Regular transient, often common in the fall; April 1, 1916 (Bicknell) to May 21, 1916 (Janvrin); October 10, 1918 (Bicknell) to November 6, 1910 (Griscom) and December 12, 1918 (Bicknell).

New York State. Unrecorded in winter at Ossining (Fisher).

CENTRAL PARK. Common transient; March 12, 1905 (Hix) and April 4, 1913 (Griscom) to May 26, 1913 (Griscom); September 23, 1913 (Hix) to November 9, 1910 (Griscom).

BRONX REGION. Common summer resident, regular and sometimes common in winter; March 19, 1912 (Griscom) to December.

New Jersey. Winters regularly at Elizabeth, Plainfield and Englewood, but rare or unknown at this season further north and west.

ENGLEWOOD REGION. Common summer resident, abundant in migration, rare but regular in winter; March 24, 1907 (Hix) to November 7, 1915 (J. T. Nichols).

SLATE-COLORED JUNCO (*Junco hyemalis*)

The Junco is one of our most familiar and best known transients and winter residents. In the fall I see it every year on Fifth Avenue, in back yards, and in the squares throughout the city. It arrives with the first cold weather in September. In the middle of March large flocks of transient individuals arrive in full song from the South, and a few birds linger until the first week in May.

Long Island. Abundant transient, common winter resident; (August 28) September 14 to May 17, 1917 at Hempstead (Murphy and Nichols).

ORIENT. Abundant transient, less common in winter, September 14, 1914 to May 12, 1916; average arrival September 22.

MASTIC. Fairly common in winter, abundant transient.

LONG BEACH. Common transient, particularly in the fall; September 27, 1910 (Griscom) to December 24, 1916 (Griscom); March 1, 1917 (Bicknell) to May 9, 1917 (Bicknell); casual August 28, 1913 (J. A. Weber).

New York State.

CENTRAL PARK. Abundant transient, a few wintering regularly until the past two winters; September 14, 1908 (Hix) to May 16, 1917 (Janvrin); migration is over by November 15, and begins the third week in March on the average.

BRONX REGION. Common winter resident, September 14, 1921 (Griscom) to May 15, 1917 (L. N. Nichols).

New Jersey. Recorded May 13, 1917 near Plainfield (Rogers).

ENGLEWOOD REGION. Common winter visitant, abundant in migration; September 17, 1887 (Chapman) to May 9, 1920 (Griscom).

BACHMAN'S SPARROW (*Peucæa æstivalis bachmani*)

Accidental visitant from the southern States. Mr. J. A. Weber collected a singing male at Fort Lee, New Jersey on May 9, 1918, the only record for the State.

SONG SPARROW (*Melospiza melodia*) Fig. 25

A common resident throughout the territory, this well known bird needs little comment here. Its numbers are greatly reënforced by transients on migration in spring and fall. It is not quite so tame as the White-throat and Junco, rarely if ever invading the city streets and back yards, as those species do every year.

CENTRAL PARK. One or two nesting pairs still remain, and an individual or two may still winter; now chiefly an abundant transient, March 6, 1909 (Griscom) to May 10, 1921 (Griscom); September 26, 1922 (Carter, Griscom, Howland) to November 5, 1909 (Griscom).

LINCOLN'S SPARROW (*Melospiza lincolni*)

The shy and secretive habits of this little known Sparrow give it a reputation for rarity which it is far from deserving. While uncommon it is a regular transient in our area, but will never be seen, except by a lucky "fluke," unless specially looked for. In spring it is particularly fond of water courses, the banks of which are grown with bushes, where it remains down among the roots and disappears at the slightest noise. By going as rapidly and noisily as possible through such a tract, a *trim, small, grayish-brown* Song Sparrow will sometimes flash into view for a second as it dives headlong into the bushes a few feet ahead. Making every possible effort to be quiet, the student should next make a wide detour and return to the bank *ahead* of where the bird was seen to enter. In this way I have had the bird come to me within six feet. If a confederate be available, and the bird can be put in between the observers, one or both can obtain an observation. Lincoln's Sparrow will occur, however, in dense shrubbery almost everywhere, and I see it every spring in Central Park. It is exceptional to see more than one or two a season, and then it will occur on the big waves only. In spring it does not consort with other Sparrows, but in the fall it associates with Song and Swamp Sparrows, and is lost in their greater



Fig. 25. Song and White-throated Sparrows

Photograph by A. A. Allen

numbers. The vegetation is also more dense and I have always had much greater trouble finding it in fall than in spring. The cream-buff breast-band is only visible at close range and in good light, but the narrow streaking below is quite characteristic and easily seen. The student, whenever he does get a look at a Lincoln's Sparrow, may expect to see it at very close range, but in very poor light.

Long Island. Uncommon transient; May 7 to June 3; September 9 to the middle of October, casually to November 29.

ORIENT. Recorded in the fall from September 9 to 25, 1913.

MASTIC. No record.

LONG BEACH. No record.

New York State. Reported as rare or uncommon, depending upon the amount of special search given.

CENTRAL PARK. Uncommon spring transient, one or two seen every season, May 2, 1911 (W. H. Wiegmann) to May 24, 1899 (Chubb); undoubtedly overlooked in the fall, only one record, September 21, 1909 (Anne A. Crolius).

BRONX REGION. Rare transient, overlooked; May 15, 1922 (L. N. Nichols); September 26, 1914 (Hix) to October 12, 1912 (Griscom and LaDow).

New Jersey. Not reported from our area except near Plainfield and Englewood, where experienced field ornithologists have specially looked for it. I am convinced, however, that its status is just what it has proved to be at these two localities, namely an uncommon but regular transient. Mr. Miller has seen seven or eight individuals in the course of one spring at Plainfield.

ENGLEWOOD REGION. Uncommon transient; May 11, 1919 (Granger and Griscom) to May 18, 1919 (Griscom and W. T. Helmuth); September 10, 1898 (Chapman) to October 12, 1916 (Griscom and J. M. Johnson).

SWAMP SPARROW (*Melospiza georgiana*)

A common summer resident in fresh-water swamps, meadows and marshes throughout the territory, wintering regularly in the marshes near New York City, rarely elsewhere. On migration it occurs commonly in every type of country except deep woodland.

Long Island. Fairly common local summer resident, common transient, rare in winter; April 5 to November 17.

ORIENT. Rare summer resident at Greenport; uncommon transient and winter visitant; April 25 to May 25; September 15 to November 25.

MASTIC. A transient only, uncommon spring, common fall, rare in winter.

LONG BEACH. Bred 1908 (Griscom); uncommon spring, common fall transient; April 5, 1917 (Bicknell) to May 29, 1915 (Hix); October 3, 1917 (Bicknell) to November 14, 1919 (Bicknell); four winter records.

New York State.

CENTRAL PARK. Common transient; March 26, 1919 (Hix) to May 26, 1914 (Griscom); September 25, 1922 (Carter and Griscom) to November 9, 1908 (Griscom).

BRONX REGION. Permanent resident, scarce in winter.

New Jersey. Common summer resident throughout; a permanent resident in the Newark and Hackensack meadows and at Ash Swamp near Plainfield (Miller), rare or unknown in winter elsewhere.

ENGLEWOOD REGION. Permanent resident, common in summer, uncommon in winter, abundant in migration; the first arrivals from the south have been noted as early as March 24, 1907 (Hix), but it is not until three weeks later that the summer population reaches normal.

FOX SPARROW (*Passerella iliaca*)

This large handsome Sparrow with a splendid song is a common transient, and among the first to arrive in spring and the last to arrive in fall. While wintering regularly in certain localities near New York City, it is much rarer elsewhere at this season than several less hardy species, just the reverse of what one would suppose. In the spring it passes through very rapidly, and stragglers are rarely reported in April.

Long Island. Abundant transient, uncommon in winter at the western end, rare elsewhere; February 22 to April 30; October 12 to December 29.

ORIENT. Common transient, rare in winter; February 23, 1911 to March 17, 1915; October 20, 1906 to December 1, 1920.

MASTIC. Fairly common transient, unrecorded in winter

LONG BEACH. Common transient; March 17, 1912 (Griscom) to April 10, 1917 (Janvrin); October 12, 1921 (Griscom) to December 28, 1910 (Griscom); two winter records.

New York State. Not recorded in winter at Ossining (Fisher).

CENTRAL PARK. Common transient, occasionally wintering in former years; February 10, 1901 (Chubb) to April 18, 1919 (Janvrin) and April 22, 1905 (Hix); October 2, 1910 (Griscom) to December 6, 1907 (Griscom); casual in spring after April 1 and in fall before October 10; casual August 9, 1913 (Griscom, Auk, 1914, p. 102).

BRONX REGION. Occasional in winter; February 23, 1884 (Bicknell) to April 30, 1886 (J. Dwight); October 20, 1919, (L. N. Nichols) to December or even January.

New Jersey. Occasionally wintering at Elizabeth and Englewood, but very rarely further inland; only twice recorded after December 1 in twenty-five years at Plainfield (Miller). The earliest fall date before me is October 15, 1916, near Elizabeth (Urner).

ENGLEWOOD. March 1, 1909 (Griscom) to April 23, 1901 (Bird-Lore tables); October 15, 1887 (Chapman) to November 25, 1913 (J. T. Nichols); wintering irregularly, sometimes in numbers.

TOWHEE; CHEWINK (*Pipilo erythrophthalmus*)

The Chewink prefers the drier woods and scrub-covered hillsides for a home. As a result it is particularly abundant on the coastal plain and the dry ridges of the Kittatinny Mountains in Sussex County, New Jersey. While generally distributed elsewhere, it is less numerous in or locally absent from the rich limestone areas in northern New Jersey. Both its names are derived from its distinctive call-note. The Chewink scratches more noisily than any of our other birds, and seems to use both feet at once. Between scratches it has a trick of muttering to itself over the results obtained. These sounds coming from the middle of a dense thicket the third week in April are often the only indications of its arrival, as the song period does not begin until a little later. It remains until the end of October, and near the City is occasional in winter.

Long Island. Abundant summer resident, occasionally wintering at the extreme western end, April 16 to November 20.

ORIENT. Common summer resident, April 23, 1911 to November 5, 1909; average arrival April 28.

MASTIC. Abundant summer resident.

LONG BEACH. Regular transient in spring, April 14, 1922 (Bicknell) to May 29, 1917 (Bicknell); there are apparently only three fall records, October 6, 1921 (Bicknell) to November 19, 1922 (Griscom and LaDow).

New York State.

CENTRAL PARK. Common transient; April 12, 1915 (Hix) to May 24, 1909 (Griscom); September 22, 1922 (Carter, Crosby, Griscom) to November 11, 1914 (Hix); a bird has spent the entire winter on at least two occasions.

BRONX REGION. Common summer resident, several winter records, April 19, 1909 (L. N. Nichols) to November 11, 1916 (Hix).

New Jersey. Generally common summer resident, abundant in the northern hills, rare or absent in low rich woodland in the north-western section. There are several winter records for Plainfield and Englewood. The earliest arrival date is April 10, 1921 near Elizabeth (Urner).

ENGLEWOOD REGION. Common summer resident, April 14, 1913 (J. T. Nichols) to October 31, 1914 (J. T. Nichols); several winter records.

CARDINAL (*Cardinalis cardinalis*)

The vicinity of New York City was formerly about the northern limit of the breeding range of this brilliant and handsome bird on the Atlantic Coast. The rapid advance of the suburbs and the consequent clearing of woods and thickets has either destroyed the bird's haunts or rendered them uninhabitable. As a result it is now extirpated in practically all sections.

Long Island. Formerly a common resident in the rich woodland at the extreme western end of the island, wandering casually elsewhere. Bred in Prospect Park up to 1902, not seen there since May 2, 1914 (E. Fleischer). An individual seen at Manhattan Beach, January 1, 1912 (Hix and Rogers).

ORIENT. Casual, October 3, 1908.

New York State. Casual at Ossining (Fisher); formerly a common resident on Staten Island, now probably extirpated.

CENTRAL PARK. Formerly a common resident, extinct since 1914.

BRONX REGION. In recent years at least a casual visitant; April 14, 1886 (J. Dwight); April 9, 1916 (L. N. Nichols); flock of six December 25, 1916 (L. N. Nichols); February 1, 1920 (W. Beebe).

New Jersey. Now surviving only near Elizabeth and Plainfield, where it is still a common resident (Miller). Not recorded in recent years at Summit, Orange or Morristown. Casual at Montclair, October 3, 1906 (Howland).

ENGLEWOOD REGION. Formerly resident in several localities, now completely extirpated; extinct at Morsemere since 1907 (Griscom), at Fort Lee since 1911 (Weber), on the east slope of the Palisades above Englewood since 1914.

ROSE-BREASTED GROSBEAK (*Zamelodia ludoviciana*)

This handsome species prefers low or rich woodland, and the southern limit of its breeding range is reached in the Piedmont belt between the coastal plain and the terminal moraine. As a result the Grosbeak is entirely absent as a breeding species on the coastal plain of Long Island, and is rare and local on the north shore. It arrives the first week in May, casually in April, and rarely lingers as late as October.

Long Island. Rare and irregular summer resident on the north shore, many years ago regular in country which is now Long Island City and Astoria; uncommon transient at the western end, rare on the south shore and the eastern end; May 2 to May 24; August 28 to October 2.

ORIENT. Rare transient, April 23, 1916 to May 24, 1916 (Mabel R. Wiggins); September 15, 1912 to September 26, 1907.

MASTIC. Uncommon transient.

LONG BEACH. Only one record, two males and a female May 18, 1919 (Bicknell).

New York State. Common summer resident in northern Westchester County, decreasing southward, known only as a transient on Staten Island. One recorded April 29, 1920 in Washington Square, New York City (Charles Johnston).

CENTRAL PARK. Common transient; May 3, 1906 (Hix) to May 22, 1899 (Chubb); September 8, 1913 (Hix) to September 28, 1913 (Hix); one captured December 16, 1909 and kept in the Park Zoo.

BRONX REGION. Uncommon summer resident, the numbers fluctuating from year to year, May 6, 1916 (L. N. Nichols) to October 21, 1921 (L. N. Nichols).

New Jersey. Common summer resident throughout, increasing northward and westward. The latest date before me is September 30, 1917 near Elizabeth (Urner). Clarence D. Brown has recorded a male which visited a feeding station at Rutherford from January 26 to February 13, 1908.

ENGLEWOOD REGION. Common summer resident, May 1, 1886 (Chapman) to September 25, 1919 (L. N. Nichols).

BLUE GROSBEAK (*Guiraca cærulea*)

An accidental visitant from the South. The numerous reports of the species from the northeast in recent years by inexperienced observers lead inevitably to the suspicion that the Indigo Bunting is misidentified. Most of such reports from this area are here omitted.

Long Island. Specimen collected at Canarsie in May, 1843; one seen and carefully studied at Long Beach October 15, 1916 by J. M. Johnson and C. H. Rogers, both experienced field ornithologists previously familiar with the species in life.

New York State. Specimen collected on Manhattan Island May 15, 1838. There is no evidence that this bird should be credited to Central Park.

New Jersey. No specimens have ever been taken in our area. The published report that a taxidermist, Akhurst by name, saw several in a single day many years ago near Snake Hill is particularly open to suspicion and unconvincing. Thurber records it from Morristown on the authority of a Mr. Fairchild, but no sight record with such an absence of data would receive any credence today; nor can I see that the antiquity of the report adds to its value. The occurrence of this species in our section of New Jersey is not worth regarding as even hypothetical in my opinion.

INDIGO BUNTING (*Passerina cyanea*)

A common summer resident throughout, except on Long Island. While the brilliant male is unmistakable, the female looks like a Sparrow, but is absolutely unstreaked and usually has a glint of blue on wing and tail. The loud metallic *cheep*, and a habit of wagging the tail from side to side are also aids in identification. The Indigo Bunting is one of our latest migrants, rarely arriving before the height of the migration. In the fall it lingers until early October, at this season showing a marked preference for the borders of swamps and marshes, where it is seldom or never seen in spring. It has occurred casually in April.

Long Island. Uncommon summer resident at the western end of the island, rare and local elsewhere; similarly a common or rare transient as to locality. April 19, April 27 and May 1 to October 11.

ORIENT. Rare summer resident on Gardiner's Island (Chapman); irregular and very rare transient elsewhere, May 1 to May 30, September 14 to September 30.

MASTIC. Uncommon in spring and summer, not definitely known to breed; recorded April 26, 1921.

LONG BEACH. Very rare transient; a male caught late in April or early in May, 1918 (C. H. Lott); October 3, 1917 and October 6, 1921 (Bicknell).

New York State.

CENTRAL PARK. Uncommon but regular transient in spring, May 10, 1914 (Griscom) to May 23, 1909 (Griscom); three fall records, September 22, 1922 (Carter, Crosby, Griscom) to October 5, 1921 (Griscom); recorded in June 1892 (Chapman); casual April 28, 1902 (L. N. Nichols), April 22 to 30, 1910 (Griscom and LaDow), and October 19, 1922 (Crosby and Griscom).

BRONX REGION. Common summer resident, May 6, 1919 (L. N. Nichols) to October 14, 1918 (L. N. Nichols).

New Jersey. Common summer resident throughout.

ENGLEWOOD REGION. Common summer resident, May 6, 1886 (Chapman) to October 13, 1919 (Rogers).

DICKCISSEL (*Spiza americana*)

A common summer resident in parts of our territory and elsewhere on the Atlantic Coast eighty years ago, the disappearance westward of this species is one of the ornithological mysteries. It has long since become extinct in our area.

Long Island. A common summer resident in 1842; very rare on Shelter Island by 1875 (W. W. Worthington); stragglers taken at Miller Place in 1888 (Helme) and one at Blythewood, August 25, 1890 (F. E. Johnson).

New Jersey. Common summer resident near Hoboken in 1851 (C. S. Galbraith) and probably elsewhere. Between 1868 and 1890 there were only four records for the State. Fourteen years later W. DeW Miller made the astonishing discovery of a breeding pair near Plainfield, which raised young, but they never returned.

LARK BUNTING (*Calamospiza melanocorys*)

This species of the western plains has occurred accidentally on Long Island on two occasions, Montauk Point, September 4, 1888 and Miller Place, September 11, 1896.

SCARLET TANAGER (*Piranga erythromelas*)

A common summer resident throughout from about May 7 to the middle of October. Few of our birds exhibit so little variation in the dates of migration from year to year.

Long Island. Common summer resident, (May 1) May 7 to October 19.

ORIENT. Summer resident, locally rare or absent, May 1, 1917 to October 19, 1915.

MASTIC. Fairly common summer resident.

LONG BEACH. Six records in spring between May 8, 1919 and May 25, 1916 (Bicknell).

New York State. Common throughout. Casual in New York City, April 19, 1882.

CENTRAL PARK. Bred as late as 1904 (Hix); a common transient; April 29, 1919 (Hix) and May 2, 1908 (Anne A. Crolus) to June 4, 1907 (Hix); August 31, 1913 (Griscom) to October 7, 1907 (Griscom).

BRONX REGION. Common summer resident, May 10, 1920 (L. N. Nichols) to October 16, 1921 (Griscom).

New Jersey. Common summer resident throughout. Casual at Morristown, April 12, 1887.

ENGLEWOOD REGION. Common resident, May 4, 1912 (Griscom) to October 22, 1904 (Hix).

SUMMER TANAGER (*Piranga rubra*)

Fifty or more years ago this species nested regularly in southern New Jersey and wandered casually into our area. There are scarcely any recent records.

Long Island. Casual visitant, thirteen records between April 6 and May 16, the last in 1902.

MASTIC. One record.

New Jersey. Recorded from Morristown without data by Thurber (1887). The only recent record for the State is a male collected near Leonia, Bergen County, May 5, 1916 by J. A. Weber.

PURPLE MARTIN (*Progne subis*)

As is well known, this bird breeds in colonies which are very locally distributed in our area. The House Sparrow and the Starling are factors which are too strong for it, and it has been steadily decreasing in the last forty years. The most surprising thing about the Martin, however, is its rarity as a transient, as it is practically unrecorded away from the vicinity of a breeding colony. It is hard to believe that so large, conspicuous and noisy a Swallow is overlooked.

Long Island. Still a common summer resident on the eastern half of the island. The westernmost colony at Baldwin was deserted two years ago. April 2 to September 20.

ORIENT. Breeding colony at Greenport; otherwise a rare spring and common fall transient; April 18, 1905 to July 5 to September 15.

MASTIC. Fairly common summer resident, decreasing.

LONG BEACH. Occasional on migration; May 19, 1915 to June 13, 1918; August 11, 1921 to September 3, 1919 (all Bicknell).

New York State. No breeding colony remaining except near Rye (Lee S. Crandall), and now hardly known as a transient; a single pair started to nest on Staten Island in 1917 (Cleaves).

CENTRAL PARK. Very rare transient, single birds recorded four times in spring, April 19, 1911 (Griscom) to May 13, 1907 (Hix); once in fall, August 23, 1915 (Hix).

BRONX REGION. No record since April 30, 1886 (J. Dwight).

New Jersey. Rare and local summer resident. Breeding colonies are known at Plainfield; Morristown; Andover, Newton and Branchville, Sussex County (Miller and Griscom), and at Blairstown, Warren County (Griscom). At Morristown the Bird-Lore migration tables give April 8, 1890 as the earliest arrival date, April 17 as average, and September 11, 1911 as the latest date of departure. The bird is practically unknown as a transient elsewhere. Urner saw one bird August 31, 1920 near Elizabeth; Howland reports flocks on August 16 and 27, 1905 near Montclair.

ENGLEWOOD REGION. Recorded August 3, 1886 and May 13, 1888 (Chapman); unknown since then.

CLIFF SWALLOW (*Petrochelidon lunifrons*)

Now the rarest of our Swallows, practically extinct as a summer resident, and steadily decreasing as a transient. The best remaining place to see it near the City is the Overpeck Creek Marshes near Englewood, where it still occurs regularly every spring on days when there are flights of other Swallows. At any distance the bird looks like a dull Barn Swallow in color, with a reddish-brown rump, and the build of a Tree Swallow.

Long Island. Not known to have nested since 1904; now an uncommon or rare transient in a few favored localities, April 23 to June; August to October 11.

ORIENT. Very rare transient, August; formerly nested in Cutchogue.

MASTIC. Uncommon transient.

LONG BEACH. Very rare transient, May 24 and 26, 1917 (Bicknell and Hix); September 1, 1919 and September 2, 1920 (Bicknell).

New York State. Long since extinct as a summer resident, steadily decreasing as a transient, and apparently much rarer in fall than in spring.

CENTRAL PARK. Formerly a regular spring transient, now rare and irregular, April 20, 1911 (Griscom) to June 3, 1907 (Hix); no record in fall.

BRONX REGION. Now an uncommon or rare transient, May 3, 1917 (C. L. Lewis) to May 23, 1920 (L. N. Nichols); only one recent fall record, October 6, 1921 (L. N. Nichols).

New Jersey. Breeding colonies formerly existed at numerous stations, but the bird is now extinct in all the places listed by Dr. Stone in 1910. Colonies still exist near Boonton (Miller), Newfound-land (Miller), south end of Greenwood Lake (Miller), Andover Junction (Griscom), the northeast corner of the Wawayanda Plateau (Griscom), and in a valley about half way between the Kittatinny Ridge and the Delaware River just west of Lake Mashipacong (Griscom). It is of course likely that other colonies will be discovered in the more inaccessible rural sections of Sussex and Warren Counties. As a transient it is now uncommon and decreasing; fall records are particularly defective.

ENGLEWOOD REGION. Uncommon but still a regular transient; April 23, 1922 (Griscom and Laidlaw Williams) to June 5, 1917 (Weber); August 9, 1901 (Hix) to September 26, 1903 (Hix).

BARN SWALLOW (*Hirundo erythrogastra*)

A common and familiar summer resident, and abundant transient, though it has distinctly decreased in numbers as a breeding bird in the last forty years, and now is uncommon or absent in the suburban sections. It seldom arrives before the middle of April nor is it often seen after October 1. Transients pass through until June and return the end of July.

Long Island. Abundant summer resident except at the extreme western end; (March 16) April 8 to October 15 and casually to November 26.

ORIENT. Abundant summer resident, March 19, 1919 to September 22, 1916; average arrival April 10.

MASTIC. Common summer resident.

LONG BEACH. Abundant transient and present all summer; April 22, 1916 (Bicknell) to September 23, 1920 and October 12, 1918 (Bicknell), casually to November 26, 1918 (Janvrin).

New York State. Reported April 2, 1882 from New York City (Bird-Lore).

CENTRAL PARK. Common transient, but decreasing; April 16, 1911 (Hix) to June 3, 1907 (Hix); July 31, 1908 (Griscom) to September 28, 1910 (Griscom).

BRONX REGION. Common summer resident, April 13, 1919 (L. N. Nichols) to October 14, 1917 (L. N. Nichols).

New Jersey. Common summer resident in all rural districts, decreasing in the suburbs. Reported April 5, 1890 at Morristown (Bird-Lore).

ENGLEWOOD REGION. Formerly common, now uncommon summer resident, abundant in migration, April 9, 1922 (Griscom and Laidlaw Williams) to October 8, 1916 (L. N. Nichols).

TREE SWALLOW (*Iridoprocne bicolor*)

This is the first of our Swallows to arrive in spring and the last to leave in fall. At the eastern end of Long Island it arrives regularly in March, but further inland March records are rare, and as might be expected it departs earlier. As a nesting species it is strangely local. It is also the very first land-bird to move south in the fall.

Long Island. A fairly common though local summer resident on the eastern half of the island; abundant transient; (February 16) March 16 to November 24, and on a few occasions into January.

ORIENT. Abundant transient, rare summer resident, March 16, 1908 to October 25, frequently into November, and recorded in winter.

MASTIC. Abundant transient, uncommon summer resident; recorded March 24, 1917.

LONG BEACH. Abundant transient; March 26, 1922 (Starck) to June 22, 1916 (Bicknell); July 16, 1914 (Bicknell) to November 13, 1910 (Griscom and Hix); December 30, 1920, flock of seven, to February 19, 1921, flock of four (Bicknell).

New York State. Not known to breed anywhere in our area.

CENTRAL PARK. Common transient; April 16, 1911 (Hix) to June 3, 1907 (Hix); July 31, 1908 (Griscom) to October 20, 1907 (Griscom).

BRONX REGION. Common transient; March 27, 1916 (L. N. Nichols) to May 21, 1907 (L. N. Nichols); July 2, 1904 (Hix) to October 31, 1909 (Griscom).

New Jersey. Abundant transient throughout; while not recorded previously as nesting in northern New Jersey, this is now determined; a pair probably bred between Mount Horeb and Stirling about eighteen years ago (Miller and Hix); several pairs

nesting in the wooded swamp at the head of Culver's Lake, May 31, 1919 (Miller and Griscom); one seen feeding a young bird June 1921 near Chatham (Miller). It is particularly surprising that this bird should not nest more generally at least in Sussex County, where conditions prevail corresponding closely to parts of New England where the bird is common.

ENGLEWOOD REGION. Abundant transient; March 11, 1906 (Hix) to June 16, 1917 (Weber); July 4 regularly (Weber) to October 26, 1913 (Hix); several hundred on December 31, about 1881 (*fide* Chapman); has arrived in March four times in the past eighteen years.

BANK SWALLOW (*Riparia riparia*)

True to its name this species nests only in sandy banks. As a result it is common only along the outer beaches of the south shore of Long Island, local or absent elsewhere. It is a common transient along the coast, up the Hudson River valley, and on the larger marshes, but is a rare species inland. It is seldom seen before the last week in April, or after the first week in September. Inland it is often confused with the Rough-winged Swallow by those students who call any brown-backed Swallow the Bank, unless they can prove it to be a Rough-wing; needless to say, a very careless practice.

Long Island. Common summer resident chiefly along the outer beaches of the south shore; abundant transient; (April 9), April 20 to September 14 and September 22.

ORIENT. Locally common summer resident, April 20, 1912 to September 22, 1916.

MASTIC. Fairly common summer resident.

LONG BEACH. Formerly abundant summer resident, several large colonies in 1908 (Griscom); most of the dunes are now washed away, and relatively few pairs remain; April 27, 1922 (Bicknell) to September 10, 1914 (Bicknell).

New York City. Reported as a common summer resident at Ossining (Fisher), but there is no recent confirmation of this. It has been taken there as late as October 1. Otherwise a fairly common transient.

CENTRAL PARK. Formerly a common spring transient, now uncommon, April 29, 1912 (Griscom) to May 30, 1917 (Hix); three fall records, August 10, 1911 (Hix) to August 26, 1904 (Hix).

BRONX REGION. Uncommon transient; April 18, 1914 (Griscom) to June 15, 1917 (L. N. Nichols); August 10, 1919 (L. N. Nichols).

New Jersey. Many years ago several pairs started to breed in a sand bank near Plainfield (Miller). Reported as nesting near Morristown (Thurber), and the Bird-Lore migration tables give April 12, 1908 and September 6, 1912 as the extreme dates at Morristown. I do not know of its nesting elsewhere in our area. As a transient it is fairly common near the Hudson River, but uncommon or rare inland.

ENGLEWOOD REGION. Common transient; April 25, 1920 (Griscom) to June 7, 1903 (Hix); July 16, 1887 (Chapman) to September 3, 1907 (Weber).

ROUGH-WINGED SWALLOW (*Stelgidopteryx serripennis*)

The Rough-wing is near the northern limit of its range in our area, parts of which are practically outside it, while in places it is locally common. Perhaps due to this fact, it is almost unknown as a transient, where it does not breed. Next to the Orchard Oriole no other breeding species leaves so early for the south, and it is most exceptional to see one in August.

Inexperienced students make many blunders over the Rough-winged Swallow. In the spring it is relatively easy to identify. The brownish throat is quite different from the sharply defined breastband of the Bank Swallow. Moreover the brown of the back and wings is a purer and brighter shade, less grayish, the bird is a trifle larger, broader at the shoulders, with a slower, less erratic flight. In the fall, however, the Bank Swallow's breastband is often not so distinct, while the young Tree Swallow is brownish gray above with a dusky breastband. It is consequently practically impossible to identify a Rough-wing at this season among other transient Swallows, and the great majority, if not all, the sight records made in September are unreliable.

Long Island. Very rare and irregular summer resident, occasionally reported on migration in spring. Single pairs have been found nesting in 1878, 1893, and 1899. The last reports for the island are May 1, 1916 in Prospect Park (E. Fleischer), and May 13, 1917, Roslyn (J. T. Nichols). The hundreds seen at Long Beach and elsewhere by young observers in August and early September are nothing but young Tree Swallows. April 19 to August.

New York State. A common summer resident along the Hudson River, almost unknown elsewhere. Dates at Ossining are from April 17 to August 12 (Fisher). A single pair bred on Staten Island in 1908 (Chapin).

CENTRAL PARK. One record, May 3, 1917 (Hix).

BRONX REGION. Formerly nested at Riverdale (Bicknell); still breeds near Van Cortlandt Park; I have also seen it in summer near the Jerome Reservoir; April 12, 1919 (C. L. Lewis) to September 9, 1877 (Bicknell); no other date later than July 21.

New Jersey. Fairly common summer resident at Plainfield (Miller) and also near Morristown and Elizabeth; rare at Montclair (Howland); also common along the Delaware River in Sussex County from Dingman's Ferry to Port Jervis (Chapman, Dwight and Griscom); a single pair found nesting at Budd's Lake, Morris County, many years ago (Chapin and Miller); a pair nesting in a railroad culvert at Johnsonburg, Warren County, in June, 1921 (Griscom); otherwise unknown in our area at the present time except as a transient at Englewood; the Bird-Lore migration tables give the extreme dates at Morristown as April 15, 1912 and September 6, 1914.

ENGLEWOOD REGION. Found nesting June 16, 1887 (Chapman); now an uncommon but regular transient in spring, April 23, 1922 (Griscom and Laidlaw Williams) to May 16, 1920 (Granger, Griscom and Janvrin).

BOHEMIAN WAXWING (*Bombycilla garrula*)

An accidental winter visitant from the northwest.

Long Island. Giraud states that several were shot in 1830 and 1832; Audubon records it in 1838; specimens exist taken in 1851 and at North Haven, Suffolk County, April 18, 1889.

New Jersey. The reports of the occurrence of this species in our area are utterly unsatisfactory, and it must be regarded as purely hypothetical, until a properly authenticated specimen is obtained.

CEDAR WAXWING (*Bombycilla cedrorum*)

The Waxwing is an erratic species in this territory, and its status is hard to define. As a general rule it is a very late spring migrant, arriving between May 15 and June 1. The fall migration, when it is common everywhere, starts the middle of August with great regularity and lasts into November. At rare and irregular intervals flocks of Waxwings appear in late February, March, or April—these, however, always disappear before the regular migration late in May. In most of the region it is a very rare bird in winter. It is a rural rather than a suburban species, and has greatly decreased as a summer resident near the City.

Long Island. Fairly common local summer resident, occasional in winter eastward; I know of no winter record in many years at the western end; February 4 and May to November 18.

ORIENT. Not common resident; irregular.

MASTIC. Uncommon summer resident, common on migration in late summer and fall.

LONG BEACH. Regular transient in fall, August 10, 1919 (Bicknell) to October 22, 1916 (Griscom).

New York State. A fairly common summer resident in northern Westchester County, now largely extirpated elsewhere. Reported as resident at Ossining many years ago by Fisher, but I have no other evidence of its ever having occurred in winter in our section.

CENTRAL PARK. Uncommon spring, common fall transient; April 28, 1917 (Janvrin), May 4, 1906 (Hix), May 11, 1899 (Chubb), and May 16, 1909 (Anne A. Crolius) to June 3, 1901 (Chubb); August 10, 1905 (Hix) to November 14, 1915 (Hix); flock March 12, 1905 (Hix).

BRONX REGION. A pair bred in Van Cortlandt Park in 1919; otherwise uncommon spring, abundant fall transient; late May to June 16, 1900 (Hix); August 9, 1921 (Griscom) to November; flock March 12, 1884 (J. Dwight).

New Jersey. Common summer resident throughout, except near the City, increasing northward; the last species to arrive in full numbers in spring; wintering irregularly near Plainfield (Miller) one record near Elizabeth (Urner), rarely at Montclair (Howland); vagrant flocks appear at rare and irregular intervals in early spring.

ENGLEWOOD REGION. A few pairs still breed; as a transient uncommon in spring, May 12, 1910 (Griscom) to June 8, 1909 (Griscom and LaDow); abundant in fall, August to November 7, 1915 (Rogers); rare and irregular in early spring, March 8, 30, and April 22, 1916 the only recent occurrences; no winter record in many years.

NORTHERN SHRIKE (*Lanius borealis*)

An irregular winter visitant, often absent for several seasons, at times reported from numerous localities. It undoubtedly occurs more frequently on Long Island than elsewhere. While sometimes arriving in late October or early November, it is more often reported between December and April. Shrikes were particularly common the winter of 1921-22.

Long Island. Uncommon winter visitant; October 21, 1891 Shelter Island (W. W. Worthington) to April 9, 1922 Hempstead (J. T. Nichols).

ORIENT. Rare winter visitant, October 25, 1907 to March 24, 1914.

MASTIC. Irregular winter visitant, sometimes fairly common.

LONG BEACH. Rare visitant in fall and winter, October 29, 1914 (Bicknell) to January 18, 1914 (Griscom, J. M. Johnson, Rogers).

New York State. Reported at Ossining from October 26 to April 17 (Fisher).

CENTRAL PARK. Very rare; November 5, 1901 (Rogers); November 2, 1904 (Hix); March 19, 1906 (Hix); January 20 to April 3, 1910 (Anne A. Crolius and Griscom); early December, 1910 (Anne A. Crolius); December 2, 1921 (Laidlaw Williams) to April 14, 1922 (Griscom).

BRONX REGION. Occasional winter visitant, November 7, 1921 to March 13, 1922 (L. N. Nichols).

New Jersey. Rare and irregular winter visitant. A specimen collected April 20, 1873 at Franklin (F. M. Carryl) is by far the latest date for the State.

ENGLEWOOD REGION. Rare winter visitant, October 28, 1921 (Bowditch) to April 2, 1886 (Chapman).

MIGRANT SHRIKE (*Lanius ludovicianus migrans*)

Our two Shrikes are difficult birds to separate in life until both are well known, and contrary to a general impression are likely to occur together at certain seasons of the year. The immature Northern is easily distinguished by its strong brownish cast above, the marked vermiculation or barring below, and the indistinctness of the eye-stripe. Adults, however, are another matter. The difference in size is not sufficiently great to be of value. Some students believe that the Migrant Shrike is a clearer gray above, but this idea is fallacious, and is based on comparison with an immature Northern, the commonest plumage seen here. The text-book character is the eye-stripe, which is broader and more conspicuous *between the eye and the bill* of the Migrant, and runs around the forehead as a narrow line of black, but this latter point is exceedingly hard to determine in life. By far the best character, not mentioned in any popular text-book, is the color of the bill, which is solid black in the Migrant Shrike, while the basal half or third of the *lower mandible* of the Northern Shrike is *abruptly flesh-colored*. This character is much more easily determinable in my experience than the amount of black on the lores.

The Migrant Shrike is a rare transient in fall chiefly in August and September, but occasionally lingers into the winter. It is excessively rare in spring, and has bred casually on one occasion. On Long Island it seems to occur with more regularity than elsewhere in our area.

Long Island. Rare fall transient, August 20 to November 21, and exceptionally later.

ORIENT. Rare fall transient, August 20, 1915 to February 7, 1919.

LONG BEACH. Recorded by Mr. E. P. Bicknell on August 31, 1916 and October 9, 1919.

New York State. A fledgling collected June 16, 1877 at Ossining (Fisher) must have bred in the vicinity; recorded from August 18, 1906 to September 2, 1907 on Staten Island (Chapin).

CENTRAL PARK. One record, September 15, 1910 (Hix).

BRONX REGION. Mr. Lee S. Crandall reports it from the Zoological Garden; also August 15, 1921 (L. N. Nichols).

New Jersey. Rare fall transient, recorded from August to early January at Plainfield (Miller); excessively rare in spring, May 3, 1906 at Plainfield (Miller).

ENGLEWOOD REGION. Rare fall transient, August 9, 1921 (Janvrin) to October 13, 1906 (Hix and Wiegmann); Dr. F. M. Chapman informs me that he has seen one or two almost every August in recent years on the golf grounds at Nordhoff; two spring records, April 16, 1906 (F. M. Chapman) and April 20, 1912 (Griscom and LaDow).

RED-EYED VIREO (*Vireosylva olivacea*) Fig. 26

The Red-eyed Vireo is one of our commonest and best known summer residents. A very few birds usually arrive around May 9, but are absolutely silent and easily overlooked, so that most observers do not record the species until about the height of the migration. In the fall transients arrive the last days of August, and individuals linger to about the middle of October, if the weather be mild.

Long Island. Abundant summer resident, May 1 to October 31.

ORIENT. Common summer resident, May 1, 1907 to October 8 (Mabel R. Wiggins).

MASTIC. Common summer resident.

LONG BEACH. Casual on migration; May 18, 1915 (Bicknell); September 2, 1920 to October 3, 1917 (Bicknell).

New York State. Recorded at Ossining from April 29 to October 19 (Fisher).

CENTRAL PARK. Common summer resident up to eight years ago, now one or two pairs only remaining to breed, but still a common transient, especially in fall; May 3, 1913 and May 4, 1914 (Anne A. Crolus); May 5, 1899 (Chubb); May 8, 1909 (Anne A. Crolus); May 11, 1913 (Griscom) to October 17, 1908 (Griscom); transients have arrived in numbers August 28, 1922 and August 31, 1913 (Griscom).

BRONX REGION. Common summer resident, less so than formerly; April 24, 1913 (L. N. Nichols); May 9, 1915 (L. N. Nichols) to October 10, 1921 (L. N. Nichols).

New Jersey. Abundant summer resident, still common in the suburban section, but decreasing.

ENGLEWOOD REGION. Common summer resident, May 13, 1905 (Bird-Lore) to October 26, 1914 (Bowdish).



Photograph by F. M. Chapman

Fig. 26. Red-eyed Vireo

PHILADELPHIA VIREO (*Vireosylva philadelphica*)

The extreme local rarity of this Vireo makes the greatest care necessary in identifying it. Fortunately this is not particularly difficult, if all the Vireos and Warblers be well known. This species is tame, inactive, and prefers low or medium levels, and a good study of it is not particularly hard to obtain. Such a study simply *must be* obtained, however; identifying this bird on brief glimpses will not do. If really well seen, the uniformly yellow underparts, the whitish line over the eye, and the absence of any dusky stripes on the side of the head are readily observable. The bill and actions betray a Vireo, but in size and color-pattern

the bird is much more likely to be mistaken for a Tennessee Warbler, of which it is an exact replica. Here the relatively stout bill versus the needle-shaped bill of the Tennessee Warbler is the best clue. The former has a body which may be described as stout and chubby, while the Warbler is very slender. The female Black-throated Blue Warbler is another possible source of error. While not so close in shade of color, the pattern is again the same, and the shape and bill have a closer resemblance. I have known the Philadelphia Vireo for fifteen years not only as a transient but also on its breeding grounds and winter quarters, and would sum up my experience as follows:—I have never seen a Red-eyed or Warbling Vireo that I thought was a Philadelphia; I have never seen a Philadelphia really well that I thought was anything else; I have frequently followed up birds as Philadelphia Vireos that proved to be Tennessee Warblers, female Black-throated Blue Warblers, or not satisfactorily determinable.

The Philadelphia Vireo is unquestionably one of our very rarest migrants, and one of the very few species that has not been recorded more often in the last twenty years than formerly, with an enormous increase of observers on the lookout for it. It is not without significance that our six most active local field ornithologists have detected exactly two individuals in twenty years' observations on the part of each one of them. It is hard to explain just why the bird should occur less rarely up the Hudson River Valley and at the extreme eastern end of Long Island, when both these migration routes normally converge at New York City.

Long Island. Very rare transient, collected once in spring less than ten specimens in fall; May 21; September 14 to 28; Mr. Roy Latham has several records in recent years at Orient, and Mr. Wm. T. Helmuth has collected or seen several individuals recently at Easthampton; there are only three records in 43 years for the western end of the island.

ORIENT. Rare transient; May 14 to 25; September 14 to 25.

New York State. Reported as a rare transient at Ossining September 20 to October 20 (Fisher); no record for Staten Island.

CENTRAL PARK. One record, a single bird on the "Point" in the Ramble September 15 and 16, 1921 (T. D. Carter and Griscom); it is worth noting that there has been almost daily observation in the Ramble during the migration season for over forty years, with as large a number of observers in the last twenty as any area of similar size in North America.

BRONX REGION. Specimen collected September 17, 1885 (Dwight).

New Jersey. Unrecorded in our area except at Englewood.

ENGLEWOOD REGION. Specimens collected September 15, 1913 and October 3, 1916 (J. A. Weber).

WARBLING VIREO (*Vireosylva gilva*)

Were it not for the loud, rich, warbling song, this Vireo would rarely be detected in the tops of the shade trees in which it prefers to dwell. While still a common summer resident in rural districts inland, it is steadily vanishing from the suburbs. It likes rich and well-watered country, is absent from the coastal plain and very rare or unknown just north of it. As a transient it is almost unknown. The spring arrival is with the first big wave in May. So seldom is the bird recorded after it has stopped singing, that we have very scant data as to its departure in the fall, which seems to take place about the middle of September.

Long Island. Always a rare and local summer resident on the north shore, not at present known to nest anywhere on the island; May 3 to September 16.

ORIENT. Rare transient, May 6, 1912 to May 20, 1911.

New York State. Formerly fairly common summer resident at Ossining, May 3 to September 18 (Fisher); probably still nesting in northern Westchester County, as it breeds near Hastings (Granger) and Bronxville (R. C. Murphy); never recorded on Staten Island (Chapin and others). Noted singing at Bronxville September 13, 1922 (R. C. Murphy).

CENTRAL PARK. Formerly a regular summer resident; April 29, 1902 (Chubb), April 30, 1914 (Hix), and May 1, 1899 (Chubb) to September 16, 1904 (Hix) and October 3, 1907

(Anne A. Crolius); last pair nested in 1914; since then only recorded twice, May 16, 1918 (Janvrin) and May 10, 1921 (Griscom).

BRONX REGION. Formerly a summer resident, last breeding in 1918; May 6, 1919 (L. N. Nichols) to August 20, 1910 (Hix).

New Jersey. A common summer resident in all the rural sections. In Warren and Sussex Counties every village or small town I have visited has one or more pairs. Now almost gone in the suburbs near New York City. I have no good fall dates.

ENGLEWOOD REGION. One pair nests near the Golf Club at Nordhoff, never recorded elsewhere in the region; May 7, 1922 (F. M. Chapman).

YELLOW-THROATED VIREO (*Lanivireo flavifrons*)

Our handsomest Vireo was formerly a common summer resident throughout the area from early May to the middle of September. While many of us had noted a slow but steady decrease in numbers in the last twenty years, no one was prepared for the sudden and rapid disappearance of this species since 1917 over the whole suburban section, where it is now a rare bird.

Long Island. Formerly a common summer resident, now rapidly decreasing; April 23 to September 23.

ORIENT. Rare summer resident in Peconic and Southold (Mrs. Frank D. Smith); usually only a rare transient; April 30, 1910 (Rufus W. Tuthill) to May 20, 1910; August 26, 1913 to September 14, 1913.

MASTIC. Uncommon transient, steadily decreasing.

New York State. Formerly a common summer resident, now fast becoming rare.

CENTRAL PARK. Formerly a regular summer resident and common transient, May 1, 1900 (Chubb) to September 28, 1910 (Hix); last bred in 1914; since 1917 rapidly decreasing, and now a rare bird, not recorded at all in the fall, and in spring three times in 1919, twice in 1920, once in 1921, and not at all in 1922.

BRONX REGION. Formerly a common summer resident, now uncommon and rapidly decreasing; not noted at River-

dale since 1917 (Griscom); earliest arrival date April 30, 1886 (Dwight).

New Jersey. Common summer resident in the rural districts, rapidly disappearing in recent years in the suburbs.

ENGLEWOOD REGION. Formerly a common summer resident, now rare and local; April 29, 1914 (J. T. Nichols) to September 4, 1887 (F. M. Chapman).

BLUE-HEADED OR SOLITARY VIREO (*Lanivireo solitarius*)

The Solitary Vireo was formerly a common transient in the vicinity of New York City, but now is less numerous, and is often decidedly uncommon. A few birds arrive the latter half of April, but the main migration takes place during the first twelve days in May. In the fall it returns chiefly in October. It may yet be found nesting in northern New Jersey.

Long Island. Fairly common transient; April 22 to May 30; September 14 to October 22; casual in Prospect Park, Brooklyn November 20, 1910 (E. Fleischer).

ORIENT. Uncommon transient; April 22, 1917 to May 16, 1912; September 14, 1913 to October 17, 1917 (Mabel R. Wiggins).

MASTIC. Fairly common transient; very late dates are May 30, 1917 and October 22, 1916.

LONG BEACH. Casual on migration; October 13, 1912 (Griscom and LaDow); October 3, 1917 (Bicknell).

New York State. Recorded as early as September 8 at Ossining (Fisher).

CENTRAL PARK. Fairly common transient, less so than formerly; April 9, 1908 (Anne A. Crolus and Griscom), April 14, 1912 (Hix), April 14, 1921 (Granger and Griscom), April 19, 1913 (Griscom) to May 21, 1916 (L. N. Nichols); September 22, 1917 (Hix) and September 26, 1904 (Hix) to October 24, 1909 (Anne A. Crolus).

BRONX REGION. Fairly common transient; April 22, 1885 (Dwight) to May 14, 1917 (L. N. Nichols); September 26, 1914 (Hix) to October 22, 1916 (Janvrin).

New Jersey. Fairly common transient, often uncommon. An apparently breeding bird was collected in June, 1890 on High Point, Sussex County (F. M. Chapman). This locality was visited by me

in June, 1922, but most of the country had been burned by forest fires. The most likely place in the State for this species to breed is the Wawayanda Plateau, and Waldron DeWitt Miller found a bird there early in July 1922, but no definite evidence of breeding could be obtained.

ENGLEWOOD REGION. Fairly common transient, less so than formerly; April 16, 1912 (Weber) to May 16, 1920 (Granger, Griscom and Janvrin); September 22, 1917 (Hix) to October 22, 1916 (B. S. Bowdish).

WHITE-EYED VIREO (*Vireo griseus*)

Like all our other Vireos this species has shown a marked decrease in most parts of our area. Formerly a common summer resident around New York City, it has now become uncommon or rare. Few birds have so strong and vigorous a personality. One misses the abrupt song, the perky tricks and mannerisms of this fearless little bird. In spite of these marked characteristics I have known it to be identified as a Yellow-bellied Flycatcher! It arrives the first week in May, but is rather more irregular than other species, often arriving before or after the main wave. In the fall it lingers through September, but is rarely observed.

Long Island. Common summer resident, except at the eastern end, which is almost outside its range; now uncommon or rare at the western end; April 29 to September 30 and October 8, 1896, Jamaica (Dwight).

ORIENT. Rare and local summer resident, May 8, 1906 to September 20, 1914.

MASTIC. Fairly common summer resident.

New York State. Formerly a common summer resident throughout; still common only in northern Westchester County, where it is reported from April 29 to October 3 (Fisher); elsewhere steadily disappearing.

CENTRAL PARK. Bred in 1892 (F. M. Chapman); then a common spring transient, now rare, May 2, 1914 (Hix) to May 23, 1909 (Griscom); very rarely observed in fall, September 23, 1900 (Hix) to September 28, 1909 (Griscom).

BRONX REGION. Formerly a common summer resident; it has decreased rapidly in the last ten years and is now rare; May 3, 1922 (W. C. Starck) to September 15, 1888 (Dwight).

New Jersey. Formerly a common summer resident throughout most of our area, but absent from the higher country in the northern and northwestern tier of counties; now greatly decreased in numbers, and rare or uncommon in most of its former range.

ENGLEWOOD REGION. A common summer resident up to 1910, since then rapidly decreasing and now rare; May 3, 1902 (Bird-Lore migration tables) to October 7, 1886 (Chapman).

BLACK AND WHITE WARBLER (*Mniotilta varia*)

A common and familiar summer resident throughout the territory, wherever there is woodland. The first birds arrive on the average about April 22, but transients are passing through until the end of May. It is one of the first Warblers to start moving south, appearing regularly the first week in August in Central Park. Only stragglers remain after the first week in October.

Long Island. Common summer resident, April 19 to October 24 and November 6.

ORIENT. Rare summer resident, common transient, April 22, 1914 to October 8, 1909; average arrival April 27.

MASTIC. Common summer resident.

LONG BEACH. Rare on migration; three spring records between May 8, 1919 and May 20, 1920 (Bicknell); September 2, 1920 (Bicknell); casual November 6, 1917 (J. M. Johnson).

New York State. Recorded April 18 at Ossining (Fisher).

CENTRAL PARK. Very common transient; April 19, 1909 (Griscom) to May 25, 1909 (Griscom); August 6, 1908 (Griscom) to October 20, 1907 (Griscom) and November 14, 1908 (Anne A. Crolius).

BRONX REGION. Now an uncommon summer resident and a common transient, April 21, 1922 (Dr. Denton) to October 12, 1912 (Hix).

New Jersey. Common summer resident throughout.

ENGLEWOOD REGION. Now an uncommon summer resident, common in migration; April 20, 1912 (Griscom) to October 5, 1916 (J. A. Weber).

PROTHONOTARY WARBLER (*Protonotaria citrea*)

This beautiful warbler of our southern cypress swamps is a casual or very rare visitant in this vicinity during the spring

migration, all individuals seen or recorded having been males. There is also one fall record. It has occurred far too often in the northeast in recent years to be regarded as accidental. The fact that it has occurred three times in twelve years in Central Park is not without significance, though it is also a testimony to the excellence of this locality, for Warblers an oasis in a vast desert of city roofs. The Prothonotary Warbler may be roughly described as glowing orange, with ashy wings and no wing bars. Beginners in Central Park see it quite frequently, but needless to say the Blue-winged Warbler and the Yellow Warbler divide the honors fairly between them. Neither is orange, the Yellow Warbler's wings are not ashy, the Blue-winged has wing-bars, and both are smaller, with shorter and more slender bills. Finally the Prothonotary has a loud call-note like a Water-Thrush, and a loud, penetrating song, a *tweet, tweet, tweet, tweet*, all on one key.

Long Island. Specimens taken at Jamaica in May 1849 and at Montauk Point, August 26, 1886. This last capture was recorded by Dutcher in April, 1888, and was alluded to again by him in 1895 when he recorded the Jamaica specimen. Somewhat ambiguously, however, he mentioned the date of publication of the record and not the date of capture. As a result Eaton believed that a third specimen had been taken in April, 1888, which is erroneous. More recently Miss Mary W. Peckham has reported seeing one on May 6, 1916 at Forest Park, Brooklyn.

New York State.

CENTRAL PARK. A male in full song was discovered on the "Point" in the Ramble, May 3, 1908 (Anne A. Crolus and Griscom). It remained until May 10, and was seen by dozens of observers. Day after day one could enter the Ramble and locate the bird by a ring of admiring students, before whom it would sing and display without any signs of shyness. The general atmosphere of excitement was so infectious that I believe a dozen people began to study birds, thanks to this Warbler. Another male was observed April 30, 1916 (Hix). On May 2, 1919 two boy scouts rushed into the Bird Department shouting that there was a Prothonotary Warbler in the Ramble. W. DeW. Miller, Gerald H. Thayer and the writer

went over immediately, and the boys produced their bird in less than five minutes in the shrubbery on the edge of the lake. We were all able to get amply satisfactory observations.

BRONX REGION. A singing male recorded between Van Cortlandt Park and Yonkers, June 2, 1895 (E. P. Bicknell).

New Jersey. An adult male collected at Morristown, June 14, 1888 by L. P. Scherrer (Oberholser, Auk, 1918, p. 227).

WORM-EATING WARBLER (*Helmitheros vermivorus*)

The intensive observation of the last decade has shown that this species is far from being as rare a summer resident as formerly supposed. The bird prefers heavily wooded hill-sides. In such country a Chipping Sparrow song almost certainly can be traced to this species. A practiced ear can distinguish the two songs however, the Sparrow having a "rattle" in its effort, rather than the "buzz" of the Warbler. As a general rule the Worm-eater is absent from the coastal plain and level country generally. As a transient it is uncommon or rare, due in great part to its secretive habits, its inconspicuous colors, and its silence. It arrives early in May and is rarely recorded in September. As is the case with many Warblers, it is much rarer on Long Island than elsewhere.

Long Island. Rare transient, very rare summer resident on the north shore; almost unknown on the south shore; April 28 to May 18, 1912, Prospect Park, Brooklyn (Charles Johnston); July 25 to September 21.

ORIENT. Rare transient; April 28, 1908 to May 12, 1906; July 25, 1908 to September 2, 1913.

New York State. A fairly common summer resident in northern Westchester County; only once recorded on Staten Island (Chapin).

CENTRAL PARK. Uncommon transient; May 6, 1914 (Griscom) to May 17, 1910 (Griscom); August 3, 1905 (Hix) to August 25, 1907 (Hix); casual April 19, 1909 (Griscom and LaDow).

BRONX REGION. Bred up to 1895 (Bicknell and Dwight), now an uncommon transient; May 1, 1877 (Bicknell) to August 22, 1890 (Dwight).

New Jersey. Locally a common summer resident. Breeds commonly on the east slope of the Palisades of the Hudson; absent in the level country between the Hudson and the hills near Plainfield, Chatham, Summit and Morristown, where it is still fairly common in such unspoiled country as remains; common in the Ramapo Mountains, and occurring throughout the rest of northern New Jersey wherever it finds the heavily wooded hillsides it requires. As a transient it is reported as rare or uncommon by various observers according to their experience or the number of years they have spent in the field.

ENGLEWOOD REGION. Common summer resident on the east slope of the Palisades; elsewhere an uncommon transient; May 2, 1920 (Griscom and Janvrin) to May 16 (Weber); July 24, 1915 (Weber) to August 27 (Weber); casual April 14, 1913 (J. T. Nichols).

BLUE-WINGED WARBLER (*Vermivora pinus*)

A very common summer resident in most of our territory, but wanting on the coastal plain of Long Island and in the higher sections of northwestern New Jersey. It arrives early in May, starts moving south early in August, and is almost unknown in September.

Long Island. Not uncommon summer resident on the north shore, decreasing eastward; generally an uncommon transient; May 2 to September 17, 1915, Fort Hamilton (De L. Berier).

ORIENT. Breeds on Gardiner's Island, elsewhere a rare transient; May 4 to 24, 1908; July 15 to September 1.

MASTIC. Fairly common transient, uncommon in summer.

New York State. A common summer resident throughout.

CENTRAL PARK. A transient, generally uncommon in spring, often common in fall; April 30, 1905 (Hix) to May 16, 1911 (Anne A. Crolus); August 6, 1911 (Hix) to September 8, 1907 (Hix).

BRONX REGION. Common summer resident, April 26, 1913 (G. K. Noble) to September 6, 1922 (F. E. Watson); casual January 6, 1900 (Mrs. E. G. Britton).

New Jersey. A very common summer resident in the eastern half of our section, breeding north to Greenwood Lake, but rapidly decreasing northwestward. Thus it is rare near Bernardsville (Kuser), and I have never seen the bird in Sussex County, but there

is a specimen in the American Museum taken at Franklin over forty years ago in early May by F. M. Carryl.

ENGLEWOOD REGION. Common summer resident, April 27, 1913 (S. V. LaDow) to September 11 (Weber).

GOLDEN-WINGED WARBLER (*Vermivora chrysoptera*)

Far from being a rare summer resident in northern New Jersey, as stated by Dr. Stone, this species is a very common summer resident in northwestern New Jersey, but in northern Westchester County, N. Y. Elsewhere it is a rare transient, strangely so in view of its abundance as a summer resident just north of our territory. In fact the Golden wing and the Mourning Warbler must be regarded as the two rarest Warblers which visit this territory with any degree of regularity. The present species arrives the second week in May, usually on the crest of the biggest wave of Warblers of the season, and ordinarily is seen more than once only in years when Warblers are particularly abundant. In poor Warbler years it is not recorded at all. In August and early September occasional individuals are seen by those enthusiastic enough to be afield at this season.

Long Island. Rare transient; May 6 to May 27; August 15 to September 14; almost unknown on the south shore.

ORIENT. Rare transient; May 6, 1906 to May 27, 1917; August 20, 1916 to September 14, 1913.

New York State. Rare summer resident near Ossining (Fisher); elsewhere a rare transient.

CENTRAL PARK. Rare transient, noted three years out of five, but occasionally more individuals in the fall; May 7, 1904 (Hix) to May 18, 1908 (Anne A. Crolius); August 13, 1911 (Hix) to September 8, 1907 (Hix) and casually to October 3, 1907 (Anne A. Crolius).

BRONX REGION. Rare transient; May 4, 1916 (E. G. Nichols) to May 18, 1913 (L. N. Nichols); August 22, 1890 (Dwight).

New Jersey. A very common summer resident throughout Sussex County and the higher parts of northern Passaic County, breeding south to Green Pond, Warren County (Griscom), Budd

Lake, Morris County (Miller), Cranberry Lake (Griscom) and Boonton (Carter); apparently absent along the Delaware River. Elsewhere a strangely rare transient.

ENGLEWOOD REGION. Rare transient; May 4 (Weber) to May 16, 1920 (Granger, Griscom, Janvrin); July 22, 1913 (Weber) to September 4 (Weber).

BREWSTER'S WARBLER (*Vermivora leucobronchialis*)

LAWRENCE'S WARBLER (*Vermivora lawrencei*)

For many years the status of these two birds was in doubt, but it is now generally accepted that they are fertile hybrids of the two last species. Naturally they are much rarer birds than their parents, and Lawrence's Warbler, the recessive, is very much rarer than Brewster's. They are produced where the ranges of the parents overlap, as in Westchester County and parts of New Jersey, such as Boonton and the Wyanokie hills. As a result our region is particularly favorable for them, and the immediate vicinity of New York City is one of the best places to find them as transients. The more extended observation of recent years shows that either hybrid is likely to be observed during the spring migration in most parts of our territory, and both have been found breeding. There is no longer any point in recording such transients, but breeding birds should be carefully watched and their progeny determined if possible.

Long Island. As is to be expected both hybrids are very rare transients, and neither has been found breeding. Brewster's has been found twice, and Lawrence's four times.

MASTIC. Brewster's Warbler, August 25, 1918; Lawrence's Warbler, May 18 and June 13, 1920.

New York State. Brewster's Warbler has been observed in the breeding season at Ossining (Fisher), and a total of six specimens taken. Lawrence's Warbler has been recorded from Rye and Staten Island, and was found breeding in Bronx Park in 1903, and the next May another returned but did not remain. In the last few years I have received several reports of Lawrence's Warbler from Van Cortlandt Park and Mount Vernon, and in June, 1922 it was found breeding near Briarelliff Manor (Gerald H. Thayer).

CENTRAL PARK. Brewster's Warbler, April 29 and May 12, 1914 (Hix); May 5, 1916 (Hix).

New Jersey. Brewster's Warbler has been taken or observed at Plainfield (Miller and Rogers); Morristown (Blanchet and Thurber) and Englewood (numerous observers). It has been found breeding at Englewood (Chapman and Dwight), and in June 1922 near Wyanokie (Carter and Howland). Lawrence's Warbler has been taken or observed at Chatham (Blanchet), Hoboken (D. B. Dickinson), Morristown (Blanchet), Englewood (numerous observers) and Plainfield (Miller). It has been found at Englewood in the breeding season, and one of two nestlings being fed by a female Blue-wing near Englewood was a Lawrence's, though the male parent was undetermined (Dwight).

ENGLEWOOD REGION. Brewster's Warbler; found breeding in the late eighties by Chapman and Dwight; several recent records of transients. Lawrence's Warbler; nestling found by Dwight; four records since 1914, May 10 to 17, 1914 (J. T. Nichols), June 14 and July 24, 1915 (Weber), May 21, 1916 (J. M. Johnson).

NASHVILLE WARBLER (*Vermivora rubricapilla*)

The Nashville Warbler is an uncommon transient on Long Island, but common elsewhere in our territory. It is a common summer resident in extreme northwestern New Jersey. It is small, slender and needle-billed, and very nervous, and is easily overlooked, unless its song, which is unmistakable, is known. In any plumage, the *white eye-ring* and *entirely bright yellow* underparts identify it.

Long Island. Uncommon transient; May 4 to May 24 and June 16; September 10 to October 19.

ORIENT. Uncommon transient; May 6, 1914 (Mabel R. Wiggins) to May 23, 1912; September 14, 1913 to September 28, 1911.

MASTIC. Uncommon transient.

LONG BEACH. Casual on migration; May 17, 1911 (Griscom); October 1, 1914, October 3, 1917 and October 19, 1919 (Bicknell and Crosby).

New York State. Common transient throughout; noted as early as August 11 at Ossining (Fisher).

CENTRAL PARK. Common transient; April 21, 1919 (Hix), April 25, 1913 (Anne A. Crolius) to June 6, 1907 (Chubb); August 12, 1911 (Hix) to October 17, 1914 (Hix); only two April records, one June record, five August records, and rarely seen after the first week in October, or before May 6.

BRONX REGION. Common transient; May 7, 1920 (E. G. Nichols) to May 18, 1918 (L. N. Nichols); August 20, 1922 (Frank E. Watson) to October 13, 1913 (Hix); casual December 16, 1917 to January 9, 1918 (S. H. Chubb).

New Jersey. This Warbler undoubtedly breeds commonly in suitable swamps in the higher parts of Sussex and Passaic Counties southeastward to Cranberry Lake; both W. DeW. Miller and the writer have seen it in numerous localities during June and early July, though no nests have been found. In the rest of our area it is a common transient.

ENGLEWOOD REGION. Common transient; April 24, 1920 (Rogers) and May 1, 1914 (J. A. Weber) to May 18, 1913 (Griscom and LaDow) and June 12, 1887 (F. M. Chapman); August 26, 1887 (F. M. Chapman) to October 23, 1915 (Rogers); casual November 16, 1907 (Griscom and C. C. Trowbridge); the female collected June 12 may have been breeding.

ORANGE-CROWNED WARBLER (*Vermivora celata*)

This Warbler is in exactly the same class as the Philadelphia Vireo, practically casual in spring and very rare in the fall, at which season it is often remarkably late, due to its wintering much further north than the great majority of the family. For the beginner it is a very difficult bird to identify in life, but those who know the other *Vermivoras* well can hope to recognize it. Equally small and even more restless than its relatives, it can be told from the Nashville by the *greenish* underparts with *dusky streaks* and the dusky greenish upperparts. The color of the underparts is quite different from bright yellow, and there is little or no appreciable difference in shade above and below in fall birds. In other words the bird appears uniformly colored throughout.

Long Island. Exceedingly rare transient; one old specimen with no date; April 13, 1919 (A. H. Helme) and May 7, 1906 (Roy

Latham); October 12, 1892 (A. H. Howell); autumn of 1893 (A. H. Helme); previously unrecorded is a specimen taken October 8, 1908 on Shelter Island (W. W. Worthington).

ORIENT. Mr. Latham reports it on May 7, 1906, and from September 4 to 10, 1914. The date of the fall records is a month earlier than any record for New England, and there is a possibility of error.

LONG BEACH. One seen October 13, 1919 (Bicknell).

New York State. One record at Ossining (Fisher); a single individual was discovered in the dense ornamental conifer groves of the Moravian Cemetery on Staten Island, January 8, 1917 (W. H. Wiegmann) and remained at least until January 20 (Hix); another found in the same place December 26, 1920 (Lester Walsh), seen so well and described so accurately, that there can be no reasonable doubt of its identity.

BRONX REGION. Recorded at Riverdale, October 9 and 29, 1876 (Bicknell).

New Jersey. Specimen taken May, 1865 at Hoboken (C. S. Galbraith); reported from Morristown by Thurber, but no specimen in his collection; in the Dwight Collection I find two specimens taken at West Orange by Stephen Van Rensselaer, October 2, 1894 and April 14, 1898.

ENGLEWOOD REGION. A singing male found near West Englewood, May 18, 1913 (Griscom, Auk, 1913, p. 585). This account is defective in that it does not mention the fact that I was previously acquainted with this species in life.

TENNESSEE WARBLER (*Vermivora peregrina*)

Formerly a very rare spring transient, sometimes not uncommon in the fall. Since 1912 rapidly increasing, and now a regular transient, generally uncommon in spring, sometimes abundant in fall. With practice those who know our little green *Vermivoras* can recognize this species readily. In the first place it never has an eye-ring, but *always has a superciliary stripe*, which is whitish or yellowish. The underparts vary from *pure white* to *pale lemon yellow*, never bright golden yellow or greenish. Finally, the undertail-coverts are always white. The song is a loud, strident chattering, and is absolutely unmistakable.

Long Island. Formerly very rare, now uncommon, but more so than elsewhere in our territory; May 8 to May 30; August 20 to October 3; only one spring record prior to 1908.

ORIENT. Rare transient; May 10, 1908 to May 30, 1917 (Mabel R. Wiggins); September 14, 1913 to September 28, 1909.

MASTIC. Uncommon transient; noted as late as May 30, 1917.

LONG BEACH. The least rare of its genus; May 30, 1917 (Rogers) and May 26, 1918 (Janvrin); six fall records from August 20, 1922 (Griscom and LaDow) to October 3, 1917 (Bicknell).

New York State. Reported years ago at Ossining as a rare transient, May 22 to 27, August 22 to October 2 (Fisher); now uncommon in spring, often common in fall.

CENTRAL PARK. Formerly a very rare spring and rare fall transient; now regular and sometimes common or abundant; no spring record prior to May 16, 1902 (L. N. Nichols); May 24, 1910 (Hix); May 12, 1912 (Anne A. Crolius); May 16, 1913 (Griscom); May 6 and 17, 1914 (Anne A. Crolius, Griscom and others); latest spring date May 27, 1917 (Hix); August 19, 1922 (Griscom) to October 10, 1915 (Hix). To summarize the available information, the Tennessee Warbler arrives on the biggest waves of the spring, and the number of times it is seen depends upon the number of waves. In the fall it arrives regularly the end of August, and on certain days is often the commonest species of Warbler.

BRONX REGION. May 21, 1884 (Dwight); May 6, 1921 (L. N. Nichols) to May 30, 1917 (Janvrin); August 27, 1922 (Griscom) to October 16, 1921 (Griscom).

New Jersey. Now a regular transient, uncommon in spring, sometimes abundant in fall.

ENGLEWOOD REGION. First spring record May 21, 1905 (Hix and Wiegmann); now regular transient, often common or even abundant during the fall migration; May 7, 1922 (Griscom and Janvrin) to May 26 (Weber); August 18, 1896 (Dwight) to October 10 (Rogers).

NORTHERN PARULA WARBLER (*Compsothlypis americana usneæ*)

One of our very commonest transient Warblers, arriving regularly the first days of May, rarely in April. The females

are often two weeks behind the males. In the fall it is one of the later species to move south, rarely recorded in August and not often seen in October. The Parula Warbler is a local summer resident in the pine barrens of eastern Long Island where *Usnea* moss grows. It is a rare and local breeder in northern New Jersey, where the moss does not grow, and the nest is made of fine shredded bark.

Long Island. Common transient; local summer resident from Cold Spring Harbor eastward; April 25 to May 30; August 23 to October 24.

ORIENT. Local summer resident, more generally a transient; April 30, 1908 to October 17, 1917 (Mabel R. Wiggins); average arrival May 2.

MASTIC. Fairly common summer resident; abundant transient.

LONG BEACH. Rare on migration; May 8, 1919 to May 29, 1915 (Bicknell); October 3, 1917 to October 18, 1917 (Bicknell).

New York State. Common transient throughout. No breeding record.

CENTRAL PARK. Very common transient; April 21, 1919 (Hix) and April 25, 1913 (Anne A. Crolius) to June 6, 1907 (Chubb); August 12, 1911 (Hix), August 15, 1904 (Hix), August 19, 1914 (Hix) and August 28, 1922 (Griscom) to October 17, 1914 (Hix).

BRONX REGION. Common transient; April 30, 1886 (Dwight) to May 30, 1917 (Janvrin); September 15, 1919 (W. Granger) to October 16, 1904 (Hix).

New Jersey. Rare and local summer resident in Sussex and Passaic Counties. The nest has been found at Newton (P. B. Philipp). The bird has been recorded in June at High Point (F. M. Chapman), Budd's Lake (W. DeW. Miller), Cranberry Lake (Griscom), Bearfort Mountain (Miller and Griscom). A common transient throughout our area; an exceedingly early individual observed along the Rahway River, April 23, 1916.

ENGLEWOOD REGION. Very common transient; April 25, 1920 (Hix) to May 31, 1915 (W. H. Wiegmann); August 16, 1887 (F. M. Chapman) to October 10, 1915 (C. H. Rogers); casual November 4, 1913 (W. T. Helmuth).

NOTE:—The Southern Parula Warbler (*Compsothlypis a. americana*) has been credited to this region by Ridgway (Birds of North and Middle America, Vol. II, p. 482), who referred breeding birds from eastern Long Island to this subspecies. Subsequently W. DeW. Miller (Auk, 1909, p. 309) advanced excellent reasons for disagreeing with this determination, and the A. O. U. Committee in the last edition of the Check-List adopted the same viewpoint. Eaton, however, in 1914 restored this race to the list of New York State birds, advancing no new arguments or evidence. I have been over the available material, and agree fully with Miller's conclusions.

CAPE MAY WARBLER (*Dendroica tigrina*)

The Cape May Warbler was formerly the prize of the spring migration, and a glimpse of an adult male in May gave the enthusiast an indescribable thrill of exultation. In the fall, in the Hudson River Valley especially, immature birds were occasionally not uncommon. These days have passed, and while the bird's trim beauty is perennially appreciated, all excuse for a thrill has gone. From 1909 on, this Warbler has been a regular transient in our area, though its numbers vary considerably from year to year. In spring only one or two males will be recorded in poor Warbler years, while it might almost be called common in years when Warblers are abundant, and there are more than the usual number of waves. Although the charm of rarity has departed, certain things still make it a marked species in spring. I have never known it to arrive except on the biggest waves of the season. It will often linger for days in the same group of trees, long after the other Warblers with which it arrived have moved on. It is almost never recorded after the height of the migration, and females are strangely rare. In the fall the bird is frequently observed anywhere from the last days of August to the middle of October, and is now one of the commoner species. The identification of adults at this season presents no special difficulty. The distinctly yellow sides of the head

and the uniform heavy streaking below are diagnostic. The immature bird is, however, a very obscure Warbler, and is very difficult to identify. To the beginner it resembles a young Blackpoll. It is a *tiny* species, always more streaked below, with a *conspicuously yellow rump*. The call-note is a particularly weak, thin, high *tsip*.

Long Island. Now rare or uncommon in spring, uncommon but regular in fall; May 5 to May 20 and June 3; August 15 to October 14; casual December 5, 1916 at Hewlett (Bicknell).

ORIENT. Rare transient; May 9, 1916 (Mabel R. Wiggins) to May 30, 1915 (Mabel R. Wiggins); August 15, 1909 to September 30, 1915 (Mabel R. Wiggins).

MASTIC. Uncommon transient.

LONG BEACH. Three spring records, May 17, 1917 (Bicknell) to May 26, 1917 (Hix); one of the more frequent Warblers in fall, September 1, 1919 (Bicknell) to October 3, 1917 (Bicknell), also October 28, 1917 (Rogers).

New York State. Now a fairly common spring and common fall transient.

CENTRAL PARK. A regular transient, always common in fall, common or uncommon in spring according to season; thus in 1913 eleven males were recorded between May 13 and 18; only two spring records between 1885 and 1909; May 6, 1914 (Griscom) to May 24, 1909 (Griscom); August 27, 1921 (Griscom) to October 11, 1908 (Griscom).

BRONX REGION. Uncommon transient, May 12, 1918 (L. N. Nichols) to May 31, 1917 (L. N. Nichols); September 24, 1890 (Dwight) to October 14, 1922 (Hix); no adequate fall arrival date.

New Jersey. Now an uncommon spring and fairly common fall transient. The earliest arrival date is May 4, 1912 at Plainfield (W. DeW. Miller).

ENGLEWOOD REGION. Only one spring record between 1885 and 1913; now an uncommon spring and fairly common fall transient, occurring regularly; eleven males observed on May 18, 1913; May 6, 1919 (Granger and Griscom) to May 26 (Weber); August 28, 1921 (Griscom) to October 3, 1915 (Rogers).

YELLOW WARBLER (*Dendroica æstiva*)

This well known and unmistakable Warbler is a common summer resident in all rural sections of our territory, but has decreased greatly in the immediate vicinity of the City. It is quite irregular in its migrations, appearing anywhere between April 20 and the first week in May. Breeding birds often disappear the first week in August, but normally remain until the end of the month. On rare occasions transient individuals are observed during a big flight in the middle of September.

Long Island. Common summer resident, April 18 to September 20 and September 28.

ORIENT. Common summer resident, April 30, 1908 to September 28, 1913; average arrival May 2.

MASTIC. Abundant summer resident.

LONG BEACH. Regular transient; May 4, 1916 (Bicknell) to May 26, 1918 (Janvrin); July 24, 1919 and August 4, 1921 to September 17, 1914 (Bicknell).

New York State. Common summer resident outside the Metropolitan district.

CENTRAL PARK. Common transient, a few pairs still nesting; April 19, 1912 (Anne A. Crolius) to September 15, 1921 (Carter and Griscom); casual October 5, 1921 (Carter and Griscom); rarely recorded in September, breeding birds often departing early in August.

BRONX REGION. Now an uncommon summer resident, May 4, 1916 (L. N. Nichols) to August 27, 1910 (Hix, Rogers and Wiegmann).

New Jersey. A common summer resident except in the suburban sections, but somewhat local, with a marked preference for willow thickets on the borders of swamps and streams.

ENGLEWOOD REGION. Now an uncommon and local summer resident, April 26, 1902 (Bird-Lore) to September 1, 1887 (Chapman) and September 16, 1919 (Weber).

BLACK-THROATED BLUE WARBLER (*Dendroica cærulescens*)

This is one of our commoner transient Warblers, and breeds locally in Sussex and Passaic Counties, New Jersey. Beginners have good cause to bless the distinctly colored male for not changing his plumage in the fall. The obscure

female has a small white spot at the base of the primaries, which is often hard to see. The bird is rarely recorded in April and August.

Long Island. Common transient, April 30 to May 27; August 26 to October 17 and casually November 30.

ORIENT. Common transient in spring, less so in fall; April 30, 1908 to May 25, 1915 (Mabel R. Wiggins); average arrival May 4; August 28, 1913 to October 25, 1912.

MASTIC. Uncommon transient.

LONG BEACH. Occasional on migration; May 8, 1919 to May 20, 1920 (Bicknell); September 2, 1920 to October 6, 1921 (Bicknell) and October 28, 1917 (Rogers).

New York State. Common transient throughout; casual November 27 to December 9, 1906 at Irvington (Louis Dunham); on the latter date the bird was found dead and sent to the American Museum.

CENTRAL PARK. Common transient; April 25, 1921 (Granger), April 28, 1908 (L. N. Nichols) and May 4, 1909 (Griscom) to May 30, 1917 (Hix); August 23, 1905 (Hix) and September 1, 1904 (Hix) to October 15, 1908 (Griscom).

BRONX REGION. Common transient; May 2, 1914 (L. N. Nichols) to May 22, 1885 (J. Dwight); August 27, 1922 (F. E. Watson) to October 13, 1913 (Hix); casual November 2, 1918 (Theodore Dreier).

New Jersey. In the last two years, Mr. W. DeW. Miller has found this species in the breeding season in several localities on the Wawayanda plateau; otherwise a common transient.

ENGLEWOOD REGION. Common transient; April 28, 1912 (Griscom) to May 29, 1915 (Rogers); August 18, 1896 (Dwight) to October 12, 1916 (Weber); one April and four August records.

MYRTLE WARBLER (*Dendroica coronata*)

Our most abundant transient Warbler, the fourth to arrive in spring, from April 15 to the height of the migration in May. In the fall it is even more numerous, arriving normally the third week in September and remaining until early November. In August, 1921 there was an unprecedented flight; otherwise the bird is casual in August. Along the

coast of Long Island the Myrtle Warbler winters abundantly in the bayberry thickets, and elsewhere inland where this plant grows locally.

Long Island. Abundant transient and common winter resident, chiefly on the outer beaches or similar bushy thickets on the edges of the bays; April 10 to May 30; September 5, 1921, Port Jefferson (Griscom and Murphy) to December 10.

ORIENT. Common winter resident, abundant in migration; September 11, 1914 to May 25, 1917; average September 22 to May 18.

MASTIC. Common winter resident, abundant in fall; noted May 30, 1917.

LONG BEACH. Common winter resident, September 10, 1914 (Bicknell) to May 25, 1916 (Bicknell).

New York State. Abundant transient, wintering regularly on Staten Island and rarely along the Sound.

CENTRAL PARK. Abundant transient; April 4, 1910 (Griscom) to May 28, 1910 (Griscom); August 27, 1921, nine birds (Griscom) and September 14, 1905 (Hix) to November 13, 1908 (Griscom); casual August 28, 1908 (Griscom), August 19 and 28, 1922 (Griscom).

BRONX REGION. Abundant transient, rare in winter; April 12, 1919 (C. L. Lewis) to May 22, 1920 (L. N. Nichols); September 19, 1920 (L. N. Nichols) to November 5, 1910 (Hix).

New Jersey. Abundant transient, wintering near Elizabeth, Englewood, Plainfield and Summit, where bayberries occur locally; recorded August 13, 1921 near Plainfield (Miller).

ENGLEWOOD REGION. Abundant transient, a few birds wintering frequently; April 22, 1914 (J. T. Nichols) to May 18, 1919 (Griscom and W. T. Helmuth); September 25, 1921 (Griscom and J. M. Johnson) to November 29, 1914 (N. F. Lenssen).

MAGNOLIA WARBLER (*Dendroica magnolia*)

One of our commonest transient Warblers, rarely arriving before May 9, and its maximum numbers usually not reached until after the height of the migration. It starts moving south the latter half of August and lingers into October. In the fall plumage this Warbler is chiefly olive green and

yellow, with a sharply contrasted ashy head, a white eye-ring, two white wing-bars, and very faint streaking below. It may yet be found nesting in northern New Jersey. Less common on Long Island than elsewhere.

Long Island. Fairly common transient; (May 1) May 5 to May 30; August 17 to October 22.

ORIENT. Uncommon transient; May 1, 1908 to May 30, 1917 (Mabel R. Wiggins); September 1, 1907 to October 7, 1917 (Mabel R. Wiggins).

MASTIC. Fairly common transient; noted May 30, 1917.

LONG BEACH. Occasional on migration; May 11, 1922 to May 29, 1915 (Bicknell); September 1, 1919 to October 1, 1918 (Bicknell), and casually to October 22, 1916 (Griscom and J. M. Johnson).

New York State. A very common transient throughout.

CENTRAL PARK. Very common transient; May 3, 1922 (Griscom) and May 4, 1911 (Griscom) to June 11, 1907 (Chubb); August 16, 1911 (Hix) to October 20, 1900 (Hix).

BRONX REGION. Common transient; May 1, 1922 (L. N. Nichols) and May 3, 1913 (G. K. Noble) to May 31, 1916 (L. N. Nichols); September 6, 1919 (Granger) to September 26, 1914 (Hix); the fall dates are very defective.

New Jersey. A common transient throughout; a male seen on the Wawayanda plateau in early July, 1922 (Miller) is an indication that this species may breed there.

ENGLEWOOD REGION. Common transient; May 4, 1913 (Griscom) to June 2, 1917 (Hix); August 16, 1887 (Chapman) to October 7, 1917 (J. M. Johnson and Rogers).

CERULEAN WARBLER (*Dendroica cerulea*)

An exceedingly rare or casual transient in our territory. The male has the distinction of being the only truly blue Warbler, and is absolutely unmistakable with its blue breast-band on a pure white ground. It ranges so high, however, that it is easily overlooked, unless the song is heard. This may be described as very like that of a Parula, but the first three notes are like the opening three of the Redstart's song. The female is remarkably like a fall Blackpoll in size, general

appearance and coloration, but is *bright bluish olive green* above instead of dull grayish olive green. It ranges so high, however, that the student will get many a neckache in his efforts to identify it. In 1920 a single bird summered in the Catskills, and in 1922 Mr. George W. Gray and others made the astonishing discovery that this species was nesting in Dutchess County, New York, and it was observed in several localities during May as a transient. Should this state of affairs continue and the bird really extend its range eastward, it is possible that the Cerulean Warbler would be observed more frequently on migration in this vicinity, and students are urged to keep the sharpest possible lookout for it.

Long Island. One specimen taken many years ago in Brooklyn.

New York State.

CENTRAL PARK. One recorded as seen by Basil H. Dutcher May 5, 1885.

BRONX REGION. An adult male in full song most satisfactorily studied May 14, 1921 by Dr. Wm. H. Wiegmann. He made a rough sketch of the bird and wrote a brief description of his observation in the field. Both were immediately recognizable, and he of course knew at the time exactly what he was seeing.

New Jersey. Specimen taken at Boonton, September 1, 1887 (Sylvester Judd).

ENGLEWOOD REGION. One collected at Palisade Park, September 25, 1909 (J. A. Weber).

CHESTNUT-SIDED WARBLER (*Dendroica pensylvanica*)

Another common transient Warbler throughout our area, and a common summer resident north of the coastal plain in scrub growth. It arrives the first week in May, starts moving south about the middle of August and is casual in October. Comparatively few are seen in fall. The fall plumage is quite different from the spring plumage, but is nevertheless distinctive. No other Warbler is bright yellowish green above, *pure white, unstreaked* below, with an eye-ring and wing-bars.

Long Island. Common transient; an occasional pair has bred on the north shore; April 30 to June 2; August 25 to October 7.

ORIENT. Common transient; April 30, 1908 to June 2, 1917 (Mabel R. Wiggins); average arrival, May 7; September 1, 1907 to October 7, 1917 (Mabel R. Wiggins).

MASTIC. Uncommon transient, rare in summer.

LONG BEACH. Casual on migration, September 9, 1920 (Bicknell).

New York State. Breeds in northern Westchester County; a common transient throughout.

CENTRAL PARK. Very common transient; April 29, 1914 (Hix) to May 30, 1907 (Chubb); August 6, 1908 (Griscom) to September 26, 1914 (Hix); casual June 26, 1901 (Chubb).

BRONX REGION. Common transient; May 2, 1916 (L. N. Nichols) to May 30, 1917 (Janvrin); no fall records due to defective observation.

New Jersey. Common summer resident almost throughout our area, but locally uncommon in the suburban districts, and scarce in the coastal plain; a common transient throughout. Recorded October 1, 1916 near Elizabeth (Urner), and September 24, 1922 near Culver's Lake, Sussex County (Griscom and LaDow).

ENGLEWOOD REGION. Uncommon summer resident, common transient; May 4, 1912 (Griscom) to September 17, 1887 (Chapman).

BAY-BREASTED WARBLER (*Dendroica castanea*)

Forty years ago the Bay-breasted Warbler was generally spoken of as a rare transient, but this idea was probably due to the few observers and the very irregular observation. Certainly by 1900, when the first of the modern generation of active students began work, this species, while uncommon, was observed every spring by those who went afield every day. Like the Tennessee and Cape May Warblers it has markedly increased in the last fifteen years. At the present time it must be called a common spring transient, arriving about May 13, and rarely at all numerous until a week after the height of the migration, when one can see fifteen to twenty-five birds in a morning. In the fall it is also fairly common and regular, chiefly recorded the last week in August

and the first half of September, after which only stragglers remain. During this period one can often find the Bay-breasted the commonest species of Warblers when there is a flight.

Contrary to a general impression, fall adults are readily identifiable by anyone who knows what to look for, who can differentiate between whitish or yellowish and *yellowish buff*, and can see the *marked tinge of reddish brown* on the sides. All that is required is a good light. In other respects this species and the Blackpoll are exactly alike in the fall. The immature are almost impossible to distinguish however. The Bay-breasted is usually tinged with buff, and has buff instead of white under tail-coverts. On rare and exceptional occasions only is it possible to determine these points positively. The identification of the adults is one of those cases where no satisfactory mental picture of relatively slight differences can be gained from a book. Specimens must be examined, and the student should put them side by side in a good light, and look at them *from a distance*. Needless to say, those who cannot distinguish these two species never took this trouble, or made any effort to identify birds in the field year after year.

Long Island. Rare transient, more common recently; May 2 to June 5; August 28 to October 6; casual June 23, 1870.

ORIENT. Uncommon transient; May 12, 1911 to June 5, 1917; average arrival May 15; August 28, 1912 to September 30, 1908.

MASTIC. Uncommon transient.

LONG BEACH. Casual on migration; Mr. Bicknell has one spring and three fall records; May 18, 1916; September 2, 1920 to October 1, 1918; it was common on September 10, 1914.

New York State. Now a common transient in our section; recorded August 5 to September 26 at Ossining (Fisher).

CENTRAL PARK. Common transient; May 4, 1913 (Anne A. Crolius) and May 10, 1911 (Anne A. Crolius) to June 7, 1907 (Hix); August 20, 1914 (Hix) to September 26, 1921 (Griscom).

BRONX REGION. Common transient; May 11, 1919 (L. N. Nichols) to May 31, 1917 (L. N. Nichols); August 28, 1922 (Griscom) to October 2, 1889 (Dwight); casual July 26, 1875 (E. P. Bicknell).

New Jersey. Now a generally common transient in our section.

ENGLEWOOD REGION. Now usually a common transient; May 1, 1904 (C. H. Rogers); May 10, 1913 (J. T. Nichols) to June 9, 1917 (Weber); August 15, 1915 (Weber) to September 9, 1913 (Weber), exceptionally to September 27 (Weber) and October 3, 1915 (C. H. Rogers). Mr. Weber's dates are based on collected specimens, and are excellently representative of the fall migration of this species.

BLACKPOLL WARBLER (*Dendroica striata*)

A very common spring and abundant fall transient throughout our territory. There was an old "saw" that the arrival of the Blackpoll Warbler marked the close of the migration, but this theory has long since been exploded. It arrives about May 11, has arrived in numbers May 7 and casually even earlier, but does not reach its maximum numbers until after May 20, and is the only Warbler which lingers regularly into June. Due to the fact that most students in this territory have failed to recognize the fall Bay-breasted Warbler, the Blackpoll is generally credited with arriving in August, and as it is known to be abundant, all birds are called Blackpolls, unless an occasional individual is satisfactorily determined otherwise. Here we have an excellent illustration of how such slip-shod methods lead to error. The facts are that the Blackpoll rarely arrives before September 10, does not become common until the migration of the Bay-breasted is almost over, and remains regularly to the middle of October. I here reject almost all August reports, knowing them to be inconclusive.

Long Island. Abundant transient; (May 2, May 3), May 11 to June 6, 18, and 20; September 1 to October 30, and casually to November 20.

ORIENT. Common transient; May 2, 1920 to June 20, 1914; average May 12 to June 6; September 2, 1909 to November 20, 1913.

MASTIC. Common transient.

LONG BEACH. Regular on migration; May 8, 1919 to May 29, 1915 (Bicknell); September 15, 1921 to October 26, 1921 (Bicknell).

New York State. Recorded August 30 at Ossining (Fisher).

CENTRAL PARK. Very common spring, abundant fall transient; May 3, 1911 (Griscom), May 4, 1913 (Griscom), May 5, 1919 (Griscom) to June 15, 1917 (Hix); September 1, 1911 (Hix) to October 22, 1908 (Griscom).

BRONX REGION. Very common transient; May 12, 1912 (Hix) to June 10, 1886 (Dwight); September 7, 1919 (Granger) to October 14, 1911 (Hix).

New Jersey. Recorded October 27, 1918 at Elizabeth (Urner).

ENGLEWOOD REGION. Abundant transient; April 30, 1916 (J. M. Johnson), May 6, 1900 (Bird-Lore) to June 15, 1920 (Rogers); August 30, 1887 (Chapman, specimen taken) to October 20, 1914 (J. T. Nichols).

YELLOW-THROATED WARBLER (*Dendroica dominica*)

This is the rarest of our local Warblers, occurring casually in spring. It is easily recognized, and has a fine ringing song, suggesting a very good Myrtle Warbler, or a poor Indigo Bunting.

Long Island. An old specimen taken in Kings County; a male at Oyster Bay from July 4-8, 1907 (Theodore Roosevelt); a male discovered in Prospect Park, Brooklyn, April 28, 1917 by Mr. Edward Fleischer and seen the next day by L. N. Nichols, R. M. Harrington and others.

New York State.

CENTRAL PARK. A male discovered in the Ramble by Dr. Ellsworth Elliott on April 17, 1919. He showed the bird to W. DeW. Miller, L. Williams and many others.

BLACKBURNIAN WARBLER (*Dendroica fusca*)

This beautiful Warbler is usually a common spring and fairly common fall transient, except on Long Island, where it is uncommon. A few pairs breed in northwestern New Jersey. It is more irregular in its migrations than most of our Warblers, and like the Cape May usually passes through our territory quite rapidly. It is casual in April and October.

Long Island. Uncommon transient, May 1 to 30; August 30 to October 14.

ORIENT. Uncommon transient; May 1, 1908 to May 27, 1917 (Mabel R. Wiggins), average arrival May 7; August 30, 1906 to September 26, 1908.

MASTIC. Uncommon transient.

LONG BEACH. Casual, May 26, 1918 (Janvrin); September 1, 1919 (Bicknell and Crosby).

New York State.

CENTRAL PARK. Usually a common spring transient, rather rare in the fall; April 30, 1914 (Griscom) and May 2, 1911 (Griscom) to June 7, 1907 (Hix); August 3, 1908 (Griscom) to September 14, 1911 (Hix) and casually to October 5, 1907 (Anne A. Crolus and Griscom) and October 8, 1906 (Hix).

BRONX REGION. Common spring transient, rarely reported in the fall; May 2, 1914 (L. N. Nichols) to May 27, 1917 (L. N. Nichols); September 20, 1889 (Dwight) to October 12, 1889 (Dwight).

New Jersey. Breeds in the deep hemlock woods of the Wawayanda plateau in Passaic and Sussex Counties, where it was first detected by Waldron DeWitt Miller. A common transient throughout.

ENGLEWOOD REGION. Common transient; May 3, 1914 (Griscom) to June 5, 1910 (Weber); August 16, 1887 (Chapman) to October 3, 1915 (Rogers).

BLACK-THROATED GREEN WARBLER (*Dendroica virens*)

One of our commonest transient Warblers, and breeding locally. Supposed to be a Transition Zone species, this Warbler is uncommon in northern New Jersey, where there is a distinct Canadian element, but is not uncommon locally in the pine barrens of Long Island. Arrives regularly in April. As a transient rare in August, recorded almost every year in October.

Long Island. Common transient and breeding locally in dry pine woods; April 25 through May; September 1 to October 15, and casually to November 6.

ORIENT. Rare and local summer resident; April 28, 1908 to October 7, 1917 (Mabel R. Wiggins); average arrival May 1.

MASTIC. Fairly common summer resident.

LONG BEACH. April 30, 1922 (Friedmann) and May 14, 1914 (Bicknell); occasional in fall, September 1, 1919 (Bicknell and Crosby) to October 13, 1912 (Griscom) and casually to November 6, 1917 (Bicknell).

New York State. Very common transient throughout, a few reported as breeding near Ossining (Fisher).

CENTRAL PARK. Very common transient; April 9, 1908 (Anne A. Crolus and Griscom); April 21, 1921 (Granger) to June 6, 1907 (Chubb); August 28, 1913 (Hix) to October 24, 1907 (Griscom); rare after May 25 and in August. It is exceptional for this species not to arrive in April.

BRONX REGION. Common transient; April 22, 1884 (Dwight) to June 5, 1921 (L. N. Nichols); September 6, 1919 (Granger) to October 16, 1921 (Griscom).

New Jersey. A local summer resident in the higher parts of Sussex and Passaic Counties, breeding south to Demarest (Bowditch) and the Palisades near Alpine (S. N. Rhoads and Wm. B. Evans); undoubtedly much less common than the Nashville or Canadian Warblers. A very common transient throughout.

ENGLEWOOD REGION. Very common transient; breeds regularly on the Palisades above Alpine and has bred near Demarest; April 23, 1910 (Weber) to May 20, 1915 (Weber); August 21, 1887 (Chapman) to October 20, 1912 (Griscom).

PINE WARBLER (*Dendroica vigorsi*)

This species is a characteristic bird of Pitch Pine groves. As a result it is very local in our area, breeding commonly in the pine barrens of Long Island and in two localities in northern New Jersey. As a transient it occurs in deciduous growth, but is uncommon even near the coast in spring, becoming rarer inland. In the fall for some reason it is one of our rarest Warblers. It is our earliest spring Warbler, and is rarely recorded in May.

Long Island. Fairly common summer resident in the pine barrens, an uncommon transient at the western end; (March 23) April 1 to November 7.

ORIENT. Rare summer resident in Southold and Peconic; otherwise very rare spring transient; March 23, 1908 to October 2, 1920.

MASTIC. Fairly common summer resident.

LONG BEACH. Casual, April 12, 1914 (Griscom) and September 17, 1914 (Bicknell).

New York State. Uncommon spring, rare fall transient near the coast, very rare further inland. More individuals recorded in Central Park than anywhere else in our territory.

CENTRAL PARK. Generally uncommon spring transient, varying greatly in numbers, perhaps once in ten years really common; March 29, 1921 (Blanche Samek) and March 30, 1913 (S. V. LaDow) to May 5, 1912 (Anne A. Crolus); rare in fall, recorded in only six years since 1907, and then only once each season, except in 1921; September 18, 1919 (Janvrin) and September 23, 1910 (Hix) to October 29, 1911 (Hix).

BRONX REGION. Uncommon spring transient, March 27, 1896 (E. I. Haines) to May 6, 1917 (L. N. Nichols); rare in the fall, September 28, 1918 (C. L. Lewis) to October 27, 1919 (L. N. Nichols).

New Jersey. Found breeding at High Point, Sussex County, June 10, 1890 (F. M. Chapman); this locality visited by me in June, 1922, but the pitch pine groves had been swept by fire; two pairs found apparently breeding in a pitch pine grove near Round Pond on the Kittatiny Ridge, June, 1921 (Griscom). Otherwise known only as a transient, reported as rare in spring throughout the area, except at Englewood, and almost unknown in fall. Recorded March 23, 1913 at South Amboy (Miller), December 8, 1912 near Plainfield (Miller) and December 25, 1920 near Morristown (R. C. Caskey).

ENGLEWOOD REGION. Uncommon spring transient, April 5, 1913 (Griscom and LaDow) to May 6, 1915 (Weber); Mr. Weber writes me that in the last five years he has seen from two to as many as fifty specimens each season; only two fall records, October 10, 1915 (J. M. Johnson, J. T. Nichols and C. H. Rogers), and Mr. Weber writes he has taken one specimen in fall.

PALM WARBLER (*Dendroica palmarum palmarum*)

With the great increase of students competent to identify this bird, its supposed rarity in our territory is an exploded fallacy, and very few if any people remain under any misapprehension as to its proper status. As a matter of fact, while rare in spring, it is a not uncommon and regular fall

transient in most of our territory, arriving in fall two weeks earlier than the Yellow Palm, and in spring recorded the last week in April or the first week in May. There is, however, good cause to believe that it has increased in the last twenty years.

Its identification in life is by no means difficult in spring, and is a simple matter in fall. The Yellow Palm Warbler is always uniformly yellow below. The Palm Warbler in spring has the throat and breast bright yellow, *the belly dirty white*, and abruptly yellow under tail-coverts. In fall *only the under tail-coverts are yellow*, the bird otherwise being brownish above, whitish below, with a *whitish instead of yellow superciliary stripe*.

Long Island. Uncommon transient, rare in spring, sometimes common in fall; April 18 to May 23; September 7 to October 15 and not infrequently in recent years to the middle of December.

ORIENT. Rare transient, March 20, 1919 (Mrs. Lowerre) to May 23, 1910; September 20, 1906 to December 21, 1914; frequently recorded in December.

MASTIC. Uncommon fall transient.

LONG BEACH. Regular fall transient, September 9, 1920 (Bicknell) to November 11, 1921 (Bicknell).

New York State. Reported at Ossining, April 29 and September 30 to October 12 (Fisher). Dr. F. M. Chapman saw an exceedingly early individual September 2, 1896 on West 129th Street, New York City.

CENTRAL PARK. Rare spring, uncommon but regular fall transient; April 22, 1909 (Anne A. Crolius), May 3, 1913 (Griscom), May 7, 1914 (Rogers), May 4, 1916 (Hix), April 30, 1920 (Griscom); September 4, 1911 (Hix) to October 13, 1912 (Hix).

BRONX REGION. Rare spring, uncommon fall transient; April 20, 1919 (C. L. Lewis) to May 11, 1919 (L. N. Nichols); September 19, 1915 (L. N. Nichols) to October 14, 1916 (E. G. Nichols).

New Jersey. Wherever there has been steady and long-continued observation in our area, the Palm Warbler is known to occur rarely in spring, regularly in fall, at which season it is occasionally common.

ENGLEWOOD REGION. Rare spring, uncommon but regular fall transient; May 6, 1911 (Griscom, Hix, Rogers); September 9, 1912 (Weber) to October 13, 1919 (Rogers).

YELLOW PALM WARBLER (*Dendroica palmarum hypochrysea*)

A common transient throughout. It is the second Warbler to arrive in spring, and next to the Myrtle, the two Palm Warblers are the last to leave in fall.

Long Island. Fairly common transient; April 6 to May 17; September 21 to October 30, occasionally into November, and recorded January 3, 1917 at Garden City (J. T. Nichols).

ORIENT. Common transient; April 6, 1912 (Griscom and Harper) to May 17, 1917; September 28, 1908 to November 21, 1915.

MASTIC. Fairly common transient.

LONG BEACH. Uncommon spring, common fall transient; April 9, 1920 to May 17, 1917 (Bicknell); October 6, 1921 (Bicknell) to November 25, 1920 (Crosby, Griscom, Janvrin).

New York State. Common transient throughout.

CENTRAL PARK. Common transient; April 2, 1916 (Hix) to May 16, 1917 (Janvrin); September 22, 1922 (Carter, Crosby, Griscom) to November 1, 1903 (Hix).

BRONX REGION. Common transient; April 6, 1919 (L. N. Nichols) to May 18, 1913 (L. N. Nichols); September 26, 1914 (Hix) to November 11, 1916 (Hix and E. G. Nichols).

New Jersey. A common transient throughout; recorded May 13, 1917 near Plainfield (Rogers).

ENGLEWOOD REGION. Common transient; April 3, 1921 (Griscom) to May 5, 1910 (Griscom); September 26, 1886 (Chapman) to November 11, 1915 (Weber).

PRAIRIE WARBLER (*Dendroica discolor*)

This little Warbler, which shares the tail-wagging habits of the Palm Warblers, is a characteristic species of the coastal plain, nesting in the scrub oak and pine barrens of Long Island. The immediate vicinity of New York also seems to be a highway on migration for more northern breeding individuals, as the bird is common both spring and fall in Central Park. A few birds nest in the dry cedar and briar tangled

hillsides up the Hudson River valley, and it is consequently a rare transient near that river. Further inland in our territory it is very rare or unknown.

Long Island. Common summer resident; April 27 to September 27 and casually October 22.

ORIENT. Rare and local summer resident, May 1, 1908 to September 27, 1911 (Mabel R. Wiggins); average arrival May 5.

MASTIC. Common summer resident; recorded April 27, 1921.

LONG BEACH. Occasional on migration; May 7, 1914 to May 24, 1916; August 30, 1921 to September 14, 1916 (all by Bicknell).

New York State. Rare summer resident at Ossining (Fisher). A common transient in Central Park, but rare on migration elsewhere.

CENTRAL PARK. A common transient; April 26, 1912 (Anne A. Crolius) to June 2, 1909 (Anne A. Crolius); August 20, 1905 (Hix) to September 26, 1921 (Griscom) and October 5, 1921 (Laidlaw Williams); rarely arrives in April, and seldom seen after the height of the migration in May, or after September 20.

BRONX REGION. Rare transient; May 2, 1916 (L. N. Nichols) to May 23, 1920 (L. N. Nichols); August 24, 1919 (Granger) to September 15, 1917 (Hix).

New Jersey. An uncommon but regular transient at Elizabeth (Urner) and Englewood; one of the rarest Warblers at Plainfield (Miller); one record at Summit (Holmes), one at Montclair (Howland); unrecorded elsewhere in our area.

ENGLEWOOD REGION. Uncommon transient; May 2, 1914 (Griscom) to May 26, 1916 (Weber) and June 5, 1890 (Dwight); August 23 (Weber) to September 24, 1904 (Hix and W. H. Wiegmann).

OVENBIRD (*Seiurus aurocapillus*)

A common and familiar summer resident in woodland throughout. Just what happens to our Ovenbirds in the fall is somewhat of a mystery, but after the song season is over the bird is very hard to find. In Central Park where it is a very common transient in spring, it is seldom recorded in fall.

Long Island. Common, April 20 and April 25 to October 3, and exceptionally October 23.

ORIENT. Common, April 20, 1919 to September 30, 1909; average arrival May 3.

MASTIC. Abundant summer resident.

LONG BEACH. Casual on migration, May 8, 1919; May 18, 1916; September 3, 1914 (Bicknell).

New York State. Common throughout.

CENTRAL PARK. Very common spring, rare fall transient; April 25, 1917 (Janvrin) to June 4, 1907 (Griscom); July 31, 1908 (Griscom) and August 23, 1905 (Hix) to October 14, 1907 (Griscom).

BRONX REGION. Common summer resident, April 30, 1886 (Dwight) to September 26, 1914 (Hix), casually to November 6, 1917 (E. G. Nichols).

New Jersey. Common throughout. A most exceptional date is October 27, 1918 near Elizabeth (Urner).

ENGLEWOOD REGION. Common summer resident, April 25, 1902 (Bird-Lore) to October 7, 1886 (Chapman).

WATER-THRUSH (*Seiurus noveboracensis noveboracensis*)

A common transient throughout, and a summer resident in the higher parts of northern New Jersey. The Water-Thrush rarely arrives in late April, and remains until June. The southward migration begins the first week in August, occasional individuals lingering into October.

Long Island. Common transient; April 29 to May 30; July 24 to October 12 (October 22); casual November 30, 1908 in Prospect Park, Brooklyn (E. W. Viator).

ORIENT. Common transient; May 1, 1908 to May 30, 1910; average arrival May 8; July 25, 1916 to October 10, 1920.

MASTIC. Fairly common transient.

LONG BEACH. Regular on migration; April 29, 1916 (J. T. Nichols) to May 25, 1916 (Bicknell); August 10, 1919 (Bicknell) to October 12, 1920 (Bicknell).

New York State. A common transient throughout.

CENTRAL PARK. Common transient; April 23, 1902 (Chubb) to June 5, 1909 (Griscom); August 2, 1908 (Griscom) to October 10, 1911 (Griscom).

MASTIC. No record.

LONG BEACH. One, September 2, 1920 on a lawn with Water-Thrushes (Bicknell).

New York State. Common summer resident in northern Westchester County, now very rare southward near the City.

CENTRAL PARK. Rare transient; April 2, 1916 (Hix*) to May 24, 1909 (Anne A. Crolius); August 4, 1908 (Griscom) to October 3, 1914 (Hix); casual November 24, 1910 (Hix), a bird seen eating a small fish (!); rarely recorded except on the big Warbler waves in May.

BRONX REGION. Very rare summer resident, a pair still breeding northeast of Yonkers; a pair bred in Van Cortlandt Park in 1917; otherwise a rare transient; April 10, 1915 (L. N. Nichols) to September 17, 1916 (L. N. Nichols).

New Jersey. Breeding throughout our area wherever a suitable habitat is found; Miller and I have found it at 1200 feet in the Wawayanda Plateau.

ENGLEWOOD REGION. Fairly common but local summer resident, April 8, 1911 (Griscom and LaDow) to October 2, 1885 (Chapman).

KENTUCKY WARBLER (*Oporornis formosus*)

The three Warblers of the genus *Oporornis* are unquestionably the least known. They are ground Warblers inhabiting the densest undergrowth, are wild, shy and secretive, and are usually silent on migration. As a result they are easily overlooked, and extremely difficult subjects to study. The present species is an extraordinarily local summer resident, breeding in a type of low rich woods with dense undergrowth that occurs widely in our area. It is consequently impossible to explain why this bird should only breed in two localities and should be practically unknown elsewhere.

Long Island. Exceedingly rare; two breeding records and eight records of transients in migration; May 18 to September 14.

ORIENT. Recorded May 30, June 4, and September 14.

New York State. A common summer resident near Ossining May 2 to August 27 (Fisher), and locally southward to Worthington and Hastings (Granger); unknown on Staten Island.

CENTRAL PARK. Very rare transient; June 13, 1892 (F. M. Chapman); May 24, 1908 (Hix); May 20 and 28, 1909 (Anne A. Crolius); May 18, 1910 (Anne A. Crolius); May 16, 1921 (Charles Johnston).

BRONX REGION. Bred formerly at Riverdale (Bicknell), long since extirpated; now very rare, recorded May 20, 1917 (L. N. Nichols).

New Jersey. The only breeding locality in our area was the Palisades near Englewood, where it is now extinct; at present an uncommon transient near Elizabeth, where Mr. Urner reports it eleven times in the last six years, May 14, 1916 to May 23, 1920, and August 20, 1916 to September 21, 1919; now a rare spring transient near Englewood; never recorded in twenty-five years near Plainfield (Miller); casual near Montclair, May 8, 1911 (Howland). It seems evident, therefore, that the Kentucky Warbler is extinct as a summer resident, and as a transient occurs only near the Hudson River valley, and casually elsewhere.

ENGLEWOOD REGION. Formerly a fairly common summer resident on the west slope of the Palisades just south of Englewood, the last pair nesting in 1914; only once recorded since; May 6, 1919 (Granger) to early July (Hix).

CONNECTICUT WARBLER (*Oporornis agilis*)

This shy Warbler is exceedingly rare in spring, but is irregularly present in the fall, apparently absent some years, really common occasionally. It occurs in the densest growths of swampy woods, or the borders of weedy pastures. In such a locality a large Warbler will flush suddenly and disappear after a short flight, nor will it be easily found again. It is very thrush-like in perching motionless for some time after being flushed, and the student can take advantage of this habit to get an observation. Perhaps the swampy woods of Van Cortlandt Park is the best locality near the City to find this bird, where it should be looked for anywhere between the last days of August and the first days of October. In any plumage the Connecticut Warbler differs from the Mourning in having an eye-ring. The under tail-coverts are *twice as long* as in the Mourning Warbler, and *extend for two-thirds the length of the tail*. Females and immature have a *brownish*

throat and breast, a character no other Warbler possesses. Adult males have a bluish-gray throat and breast, *with no black* on the breast, as in the adult male Mourning. However, it is very like the female Mourning, and they must be separated by the eye-ring and long under tail-coverts.

Long Island. Irregular transient in autumn, sometimes common; September 4 to October 11; rare on the south shore.

ORIENT. Rare fall transient, September 14, 1913 to September 30, 1910.

MASTIC. No record.

New York State. Exceedingly rare in spring, irregularly common in the fall.

CENTRAL PARK. Casual transient, the only Warbler that finds conditions in the Park utterly unsuitable; if one bears in mind the intensive observation every spring by scores of observers, the number of spring records is not as surprising as might seem; the following records are unquestionably authentic, made by people fully competent to identify the bird, and entirely aware of the importance of their observation; May 15, 1912 (Anne A. Crolius, Griscom, LaDow, Miller, Wiegmann); May 15, 1921 (Charles Johnston); also September 9, 1908 (Hix), September 22, 1908 (Anne A. Crolius), twice in September 1909 (Anne A. Crolius), September 22, 1922 (Crosby and Griscom), and October 5, 1922 (Griscom and others).

BRONX REGION. Irregular fall transient, often absent, sometimes fairly common, as in 1882, 1889, 1890, 1896, and 1908; August 20, 1922 (F. E. Watson) to October 2, 1889 (Dwight).

New Jersey. Exceedingly rare in spring, irregularly common in fall.

ENGLEWOOD REGION. An adult male collected May 25, 1917 at Fort Lee (Weber); in fall from August 27, 1896 (Dwight) to October 11, 1889 (Chapman).

MOURNING WARBLER (*Oporornis philadelphia*)

Next to the Orange-crowned this is undoubtedly the rarest Warbler that visits this territory with any degree of regularity. I cannot help thinking, however, that it is also frequently

overlooked. By nature shy and retiring, an inhabitant of the densest undergrowth, and usually entirely silent when migrating, the bird is never seen unless specially searched for. Most local observers stop Warbler hunting after the height of the migration and go to the coast for Shore-birds; in other words they are far away at just the time when this species is most likely to occur. Those who have seen the Mourning Warbler most frequently are those who visit favorable territory the last ten days in May, when the returns seem small and insignificant compared with the abundance of the preceding week. Mr. Miller's experience at Plainfield and my own in Central Park is that this species is usually recorded on the day of the wave of Blackpolls and female Warblers, which comes after the peak of the migration has passed. The greater rarity of the bird in fall is to be expected; it is just that much harder to find.

Long Island. Very rare transient, scarcely a dozen records, May 14, 1912, Brooklyn (Mrs. E. W. Vietor) to June, 1862; September 11, 18, and 26; previously unrecorded is a specimen taken at Baldwin, August 16, 1908 (J. P. Chapin).

ORIENT. Recorded September 18 and 26.

New York State. A rare transient; reported August 18 to October 1, at Ossining (Fisher).

CENTRAL PARK. Rare spring, very rare fall transient; May 19, 1896 (C. W. Vaughan); May 31, 1900 (Chubb); May 16, 1905 (Hix); May 24, 1909 (Anne A. Crolius); May 22, 1910 (Anne A. Crolius); May 26, 1913 (Griscom); May 18, 1914 (Anne A. Crolius); May 21, 1917 (Janvrin); June 5, 1917 (Hix); May 22, 1920 (Griscom); also August 6, 1908 (Anne A. Crolius and Griscom) and August 11, 1913 (Griscom).

BRONX REGION. Very rare spring transient, no fall records; Mr. L. N. Nichols has recorded it May 18, 1913; May 20 and 31, 1917 and May 18, 1918.

New Jersey. Recorded from but few sections in our area, but Mr. Miller tells me that in past years, when he was making a special search for Warblers at Plainfield, he used to record it three or perhaps four years out of five in spring. He has no positive fall

record. Two birds taken September 24, 1885 near Morristown (Thurber). One seen June 1, near Plainfield (Miller) seems to be the latest spring record.

ENGLEWOOD REGION. Three spring records, May 22, 1898 (Chapman) to May 26, 1918 (L. N. Nichols); two fall records, specimens taken August 21, 1912 and September 30, 1916 by Mr. J. A. Weber.

MARYLAND YELLOW-THROAT (*Geothlypis trichas*)

An abundant and well-known summer resident in swampy land throughout the territory, occasional individuals arriving in April, the majority not until about May 7. Observation in Central Park shows that it is one of the first Warblers to start moving southward. It remains until the middle of October, stragglers remaining even later near the sea coast.

Long Island. Abundant summer resident, April 14, 20 and May 1 to October 25 and casually to January.

ORIENT. Abundant, May 1, 1908 to October 25, 1915, November, 1918, December 22, 1918 and January 28, 1919; average arrival May 4.

MASTIC. Abundant summer resident.

LONG BEACH. Regular transient, a few pairs breeding; April 14, 1921 (Bicknell), April 20, 1913 (Griscom), and May 4, 1916 (Bicknell) to October 18, 1917 (Bicknell).

New York State. Common summer resident; recorded April 10, 1922 on Staten Island (Wm. T. Davis).

CENTRAL PARK. Very common transient; April 26, 1913 (Anne A. Crolius) to June 6, 1907 (Chubb); August 13, 1921 (Griscom) to October 23, 1907 (Griscom).

BRONX REGION. Common summer resident, May 3, 1916 (L. N. Nichols) to October 15, 1916 (L. N. Nichols).

New Jersey. An abundant summer resident throughout; recorded October 26, 1919 near Elizabeth (Urner).

ENGLEWOOD REGION. Common summer resident, April 30, 1917 (C. H. Rogers) to October 17, 1915 (J. T. Nichols).

YELLOW-BREASTED CHAT (*Icteria virens*)

The Chat is the eccentric clown of our local birds, and any medley of chucks, caws, toots and whistles coming from

a dense thicket may safely be ascribed to him. He is often very ventriloquial, and one bird can make noises enough for half a dozen. While generally distributed throughout our territory, it cannot be called exactly common, and in recent years has decreased markedly in the suburban districts. More often heard than seen, it arrives about May 10, but is rarely recorded in fall, apparently only stragglers remaining after the first week in September.

Long Island. Uncommon summer resident north of the coastal plain, May 2 to October 2 (October 31).

ORIENT. Rare and irregular summer resident, usually absent; May 2, 1906 to September 30, 1912.

MASTIC. Uncommon in spring; casual October 31, 1920 (Laidlaw Williams).

LONG BEACH. Casual May 15, 1919 (Bicknell) and October 10, 1922 (Hix).

New York State. Fairly common summer resident outside of the suburbs; recorded April 28 at Ossining (Fisher).

CENTRAL PARK. Uncommon spring transient, May 5, 1904 (Hix) and May 9, 1919 (Griscom) to May 31, 1901 (Chubb); very rare in the fall; August 26, 1913 (Hix) and October 5, 1921 (Carter and Griscom).

BRONX REGION. Uncommon summer resident, formerly more numerous; May 3, 1916 (L. N. Nichols) to September 14, 1921 (Griscom).

New Jersey. Fairly common summer resident throughout, occurring on High Point and the Wawayanda Plateau; recorded April 30, 1922 at Montclair (Howland).

ENGLEWOOD REGION. Now uncommon summer resident, May 5, 1886 (Chapman) to September 6, 1887 (Chapman).

HOODED WARBLER (*Wilsonia citrina*)

The erratic distribution of this beautiful Warbler will be discussed in detail below. It is supposed to be a species of the Carolinian Zone, and consequently it is quite surprising to have it decrease southward in our territory. Like the Golden-winged Warbler, it is astonishingly rare as a transient just south of country where it breeds abundantly. It arrives the first week in May and departs in August.

Long Island. Rare transient; April 30 to May 27; August 28 to September 28. As it breeds commonly in the pine barrens of New Jersey, its absence as a breeding species on Long Island is surprising. The old theory that Long Island was virtually north of its range is scarcely tenable in view of its abundance in extreme northern New Jersey.

ORIENT. Rare transient; May 4, 1912 to May 12, 1913; September 14, 1913 to September 28, 1911.

MASTIC. Twice, May 27, 1917 (J. T. Nichols and Rogers); May 10, 1921.

New York State. Formerly recorded as nesting in several localities in Westchester County, and still doing so in the northern half, but rare.

CENTRAL PARK. Uncommon spring, rare fall transient; May 4, 1916 (Hix) to May 30, 1917 (Hix); August 7, 1908 (Hix) to September 8, 1913 (Hix).

BRONX REGION. Formerly breeding at Riverdale and West Farms, long since extirpated; now a rare transient, only two recent records, May 10, 1920 and May 19, 1917 (L. N. Nichols).

New Jersey. An abundant summer resident in the hills of the northwestern and northern counties, especially characteristic of the laurel thickets and rhododendron swamps, where the Canadian Warbler is also common; ascending to 1300 feet in the Wawayanda Plateau; south along the Palisades to Fort Lee, and also in the rich valley just west of them; in the rest of our area one of the rarest Warblers on migration. So abundant is this bird across the entire northern boundary of the State, that one would suppose the country south of its breeding range would be flooded with them. The case is analogous with that of the Golden-winged Warbler, except that the Hooded is an even rarer transient. Miller, as the result of over twenty-five years' observation at Plainfield, has seen scarcely more Hooded Warblers in spring than Mournings.

ENGLEWOOD REGION. Common summer resident, formerly more abundant; May 4, 1913 (Griscom) to September 17, 1922 (Griscom and LaDow); casual November 8, 1903 (C. H. Rogers).

WILSON'S WARBLER (*Wilsonia pusilla*)

The perky little Wilson's Black-cap is a regular transient in our area, rather uncommon in most sections in spring, generally even more uncommon in fall, but occasionally

common. It arrives after the tenth of May, and its maximum numbers are generally reached in the wave of Blackpoll and female Warblers after the peak of the migration. In the fall it is rarely seen after September 15. As is usually the case with this family, the bird is scarcest on Long Island and commonest in Central Park.

Long Island. Uncommon transient; May 13 to June 13; August 22 to September 26 and October 12.

ORIENT. Uncommon transient; May 18, 1910 to May 28, 1908; August 27, 1912 (Mabel R. Wiggins) to September 26, 1914.

MASTIC. Uncommon transient; recorded October 12, 1916.

LONG BEACH. Mr. Bicknell has three records, May 14, 1914, May 29, 1915, and September 2, 1920.

New York State. A generally uncommon transient.

CENTRAL PARK. Common spring, uncommon fall transient; April 30, 1920 (Dr. Ellsworth Elliott); May 2, 1911 (Griscom); May 6, 1913 (Griscom); May 10, 1912 (Anne A. Crolius) to June 5, 1901 (Chubb); August 20, 1912 (Hix) to September 23, 1905 (Hix), exceptionally to October 4, 1904 (Hix), and October 10, 1907 (Anne A. Crolius and Griscom); casual October 31, 1903 (Rogers).

BRONX REGION. Uncommon transient; May 11, 1918 (C. L. Lewis) to May 31, 1917 (L. N. Nichols); August 14, 1890 (Dwight) to September 28, 1916 (L. N. Nichols).

New Jersey. A generally uncommon transient; recorded September 29, 1918 at Elizabeth (Urner).

ENGLEWOOD REGION. Uncommon transient; May 11, 1902 (Bird-Lore) to May 30, 1907 (Hix); August 15, 1887 (Chapman) to September 20, 1916 (Weber).

CANADIAN WARBLER (*Wilsonia canadensis*)

A very common transient throughout except on Long Island, and breeding commonly in the higher swamps of northern New Jersey. Its migration is almost the same as that of Wilson's Warbler, but it arrives a few days earlier on the average both spring and fall.

Long Island. Fairly common transient, chiefly on the north shore; May 7 to June 3; August 8 to September 19.

ORIENT. Uncommon transient; May 7, 1917 to May 29, 1915 (Mabel R. Wiggins); August 20, 1916 to September 14, 1912.

MASTIC. Uncommon transient.

LONG BEACH. Occasional on migration; May 23, 1915 (Janvrin) to May 29, 1915 (Hix); August 19, 1915 (Bicknell) to September 1, 1919 (Bicknell).

New York State. A common transient; recorded May 6 and October 11 at Ossining (Fisher).

CENTRAL PARK. Very common transient; May 9, 1913 (Griscom) to June 12, 1907 (Hix); August 6, 1913 (Hix) to September 25, 1910 (Hix) and October 8, 1907 (Anne A. Crolus and Griscom).

BRONX REGION. Common transient; May 5, 1918 (L. N. Nichols) to June 3, 1917 (L. N. Nichols); August 14, 1890 (Dwight) to September 26, 1914 (Hix); casual October 29, 1904 (Hix and Wiegmann).

New Jersey. Common summer resident in the high swamps of Sussex and Passaic Counties, breeding south to Budd's Lake and Newfoundland; a common transient throughout; recorded September 25, 1921 at Elizabeth (Urner).

ENGLEWOOD REGION. Common transient; May 7, 1922 (Griscom and Janvrin) to June 2, 1910 (Weber); August 7, 1887 (Chapman) to September 13, 1907 (Weber).

REDSTART (*Setophaga ruticilla*) Fig. 27

After the Maryland Yellow-throat and Ovenbird, the Redstart is our commonest and most generally distributed breeding Warbler, but is almost or entirely absent from the coastal plain. It is abundant on migration, arriving rarely in April, and moving south early in August. A few birds linger into October.

Long Island. Fairly common local summer resident, almost absent on the south shore; May 1 to October 15, casually to November 22, 1908 in Prospect Park, Brooklyn (E. W. Viator).

ORIENT. Rare or locally absent as a summer resident, May 1, 1908 to October 8, 1908; average arrival May 4.



Detail of Museum Group

Fig. 27. Redstart

MASTIC. Fairly common transient; recorded October 15, 1916 and November 4, 1917.

LONG BEACH. Occasional spring, regular fall transient; May 8, 1919 (Bicknell) and May 24, 1914 (Hix); August 3, 1922 (Bicknell) to October 17, 1918 (Bicknell).

New York State. Common summer resident throughout, except on Staten Island, where it is uncommon on the north side, absent on the south side.

CENTRAL PARK. Very common transient; April 27, 1913 (Griscom) to June 5, 1909 (Griscom); August 2, 1908 (Griscom) to October 11, 1908 (Griscom).

BRONX REGION. Common summer resident, April 29, 1905 (Hix) to October 11, 1920 (L. N. Nichols).

New Jersey. Common summer resident throughout, except along the southern boundary of our area, where it is uncommon or locally absent.

ENGLEWOOD REGION. Common summer resident, April 26, 1914 (Griscom) to October 19, 1907 (Weber).

PIPIT (*Anthus rubescens*)

The Pipit is a common transient along the coast, and up the Hudson River valley, but further inland is rare and irregular, often unrecorded an entire season, occasionally occurring in large flocks. As a general rule it is much less common in spring, from the middle of March to May. In the fall it is recorded chiefly from the end of September to November. Occasional individuals linger into the winter on the coastal marshes. On the ground the Pipit's slender bill and tail-wagging habits readily identify it. On the wing overhead the notes closely resemble those of the Horned Lark, and many students have difficulty in separating them. The Pipit is slender, with a very undulating flight, the Lark is noticeably broad shouldered, and its flight is little if at all undulating.

Long Island. Abundant transient; March 12 to May 27; September 6 to November 30, occasional in winter.

ORIENT. Abundant fall, rare spring transient, irregular in winter; September 10, 1910 to November 25, 1914; average arrival September 25.

MASTIC. Fairly common transient.

LONG BEACH. Uncommon fall transient, October 13, 1912 (Griscom) to November 3, 1914 (Bicknell), December 18, 1910 (Griscom, LaDow and Wiegmann), and January 4, 1910 (Griscom and LaDow).

New York State. Fairly common transient on Staten Island, up the Hudson River and along the Sound, rare elsewhere.

CENTRAL PARK. Casual visitor; October 24, 1904 (Hix); October 30 and 31, 1909 (Anne A. Crolius); May 5, 1919 (Griscom); December 25, 1919 (L. N. Nichols).

BRONX REGION. Now a rare spring and uncommon fall transient; March 20, 1921 (L. N. Nichols); September 24, 1919 (C. L. Lewis) to December 1, 1921 (L. N. Nichols).

New Jersey. A common transient on the coastal marshes, rare and irregular inland; recorded in late December and February on the Newark Marshes, and as late as May 13, 1922 (Urner).

ENGLEWOOD REGION. Common transient, irregularly abundant, on the Overpeck Meadows; rarely observed elsewhere; March 20, 1920 (Griscom) to May 5, 1918 (J. M. Johnson); September 25, 1921 (Griscom and J. M. Johnson) to November 14, 1910 (Griscom and LaDow).

MOCKINGBIRD (*Mimus polyglottos*)

The Mockingbird is one of our local species which defies classification. A century ago it was of regular occurrence in parts of southern New Jersey, colonies existed as far north as Keyport and Sandy Hook, and Giraud reported it as nesting occasionally on Long Island. Between 1875 and 1884 there were a few sporadic breeding records, but occasional birds have been reported throughout the area from then down to the present time. Dr. Chapman, writing in 1906, suggested that many of the specimens were escaped cage-birds, and this was the general view at that time. Many years have now passed since it was lawful to possess a caged Mockingbird, and the fact that the frequency of records has increased since the traffic was stopped, somewhat impugns the validity of this suggestion. At present the Mockingbird is of rare or casual occurrence, and may be expected almost anywhere in

our area except in extreme northern New Jersey. Recent records are between August 1 and May 10; least often in spring. No other southern species occurs chiefly in fall and winter, and where the birds recorded locally can come from is a mystery which still awaits solution.

Long Island. Now a casual spring transient, April 27 to May 20; rare but generally distributed early fall transient August 1 to September 9; less rare local winter resident October 1 to March 25, 1917, Garden City (Nichols); probably occurs every year.

ORIENT. Rare and irregular visitant, August 1, 1920 to May 20, 1915 (Mrs. Frank D. Smith); several winter records.

MASTIC. Rare fall visitant, latest September 9, 1917.

LONG BEACH. April 27, 1916 (Bicknell); September 4, 1917 (Newbold T. Lawrence).

New York State. Recorded at Croton-on-Hudson winter of 1899 (Miss Anne Van Cortlandt).

CENTRAL PARK. Two specimens prior to 1877 (*vide* Bicknell); October 19, 1892 to January 20, 1893 (F. M. Chapman); October 30, 1909 (L. B. Bishop); August 27, 1921 (Griscom).

BRONX REGION. Recorded October 28 and November 11, 1877 (Bicknell); February 17, 1912 (Griscom and Hix); February 9, 1920 (Lee S. Crandall).

New Jersey. Years ago the Mockingbird bred sporadically in our area and has been recorded at rare intervals ever since. Reported as a very rare summer resident at Morristown before 1887 (Thurber); a pair bred at Ridgewood in 1884 and one was seen in November 1902 (Henry Hales); from December 14, 1913 to March 3, 1914 at Andover (Blanche Hill); three records near Plainfield, one in May and two in September (Miller); May 11, 1919 near Elizabeth (Urner); April 17, 1921 near Boonton (Carter).

ENGLEWOOD REGION. A pair nested at Tenafly about 1876 and again in 1884, and one returned to the same place in the spring of 1885 (F. M. Chapman, on authority of Mr. Martin); one in early January, 1903 at Oradel (Kimball C. Atwood); one seen February 14 and March 2, 1915 (J. T. Nichols).

CATBIRD (*Dumetella carolinensis*) Fig. 28

An abundant summer resident throughout the territory, of rare occurrence in winter. Arrives the first week in May, rarely in April, and remains until October 10, lingering occasionally even later near the coast.



Photograph by F. M. Chapman

Fig. 28. Catbird

Long Island. Abundant, April 27 to November 7 and 25, casual in winter.

ORIENT. Abundant in summer, several winter records; April 27, 1913 (Mrs. Frank D. Smith) to October 23, 1916; average arrival May 12.

MASTIC. Common summer resident; once in winter, January 1, 1921; recorded as early as April 27, 1921.

LONG BEACH. Bred in 1908 (Griscom); now a rare spring and regular fall transient; May 8, 1919 to May 18, 1916 (Bicknell); September 17, 1914 (Bicknell) to November 2, 1917 (Bicknell) and November 25, 1920 (Crosby, Griscom, Janvrin).

New York State. Generally abundant summer resident.

CENTRAL PARK. Last bred in 1904; now a very common transient; April 26, 1913 (Hix) to May 30, 1917 (Hix); September 14, 1921 (Carter) to October 12, 1913 (Hix).

BRONX REGION. Common summer resident, two winter records; April 27, 1912 (Hix) to November 25, 1917 (Janvrin).

New Jersey. Abundant summer resident throughout, very rare in winter.

ENGLEWOOD REGION. Abundant summer resident, April 27, 1912 (J. T. Nichols) to November 4, 1911 (Griscom, Hix, LaDow).

BROWN THRASHER (*Toxostoma rufum*) Fig. 29

The Thrasher is a common summer resident in most of our area, but is absent or relatively uncommon in the hilly country of northwestern New Jersey. It arrives from ten to fourteen days earlier than the Catbird, but departs about the same time, and is even rarer in winter.

Long Island. Common summer resident, very rare in winter; April 2 and April 21 to November 3.

ORIENT. Common summer resident, but rare locally; recorded in winter; April 23, 1916 to October 25, 1912; average arrival April 28.

MASTIC. Common summer resident.

LONG BEACH. Formerly a common summer resident, still breeds occasionally or frequently; April 21, 1912 (Griscom) to October 13, 1919 (Bicknell).

New York State. Common summer resident throughout our area.

CENTRAL PARK. Common transient; April 19, 1914 (Fetterer) to June 4, 1917 (Hix); September 4, 1910 (Hix) to October 19, 1907 (Griscom); casual in August; wintered up-town three years in succession from 1907-8 to 1909-10.

BRONX REGION. Common summer resident, April 8, 1919 (L. N. Nichols) and April 21, 1917 (E. G. Nichols) to October 12, 1909 (Griscom); one winter record.

New Jersey. Generally common summer resident, but uncommon or locally absent in the hills of the northwestern and extreme northern sections; it is abundant, however, along the Delaware River from Dingman's Ferry to Port Jervis, a very sandy region; very rare in winter.



Photograph by F. M. Chapman

Fig. 29. Brown Thrasher

ENGLEWOOD REGION. Fairly common summer resident, April 8, 1913 (Weber) and April 17, 1921 (Bowdish) to October 7, 1886 (Chapman) and November 8, 1910 (Bowdish); three winter records.

CAROLINA WREN (*Thryothorus ludovicianus*)

The Carolina Wren is an austral species which periodically spreads northward. Once a pair has become established, however, they are strictly resident, but are unable to withstand an unusually severe winter. Our territory is at the northern limit of its range, and its fortunes here vary widely. Up to about 1900 it was resident on Staten Island, had bred

once at Riverdale, and was occasionally recorded on Long Island, in Westchester County and near Englewood, New Jersey. About this time a northward movement took place, a colony became established on the Palisades, another on Gardiner's Island, the bird bred sporadically on Long Island and at Plainfield, and appeared elsewhere in the territory more frequently. The period of maximum abundance was reached about 1911. A sharp winter caused a decline in numbers, and while the colonies on the Palisades and Gardiner's Island survived, there was a marked decrease in records elsewhere. The record-breaking winter of 1917-18 completely exterminated the Carolina Wren throughout our territory, and it has been scarcely recorded since. It may confidently be expected to appear again in the future.

Long Island. A colony was established for years on Gardiner's Island, and scattered pairs have bred at Flushing and Roslyn; numerous records elsewhere; at present all breeding birds exterminated.

ORIENT. Besides the colony on Gardiner's Island, known as a rare visitant at Orient between July and March; now probably extinct.

MASTIC. Rare visitant, no records since the winter of 1917-18.

New York State. Permanent resident on Staten Island until the winter of 1917-18; occasional visitant to the rest of the area, nesting casually; never recorded at Ossining. No records since the winter of 1917-18.

CENTRAL PARK. Rare and irregular visitant, occasionally remaining some time; thus present from October to December 1907 (Anne A. Crolius); another bird appeared the middle of June, 1908, and remained until late February, 1909; no recent records.

BRONX REGION. Mr. Bicknell obtained several records at Riverdale, and found it breeding May 2, 1879; the only recent records are December 28, 1908 to May 8, 1909 (Griscom), and January 27 to February 4, 1911 (Hix).

New Jersey. Recorded as very rare at Morristown (Thurber) and Summit (Holmes); rare and irregular visitant at Plainfield from July 4, 1898 to the last severe winter, one actual breed-

ing record (Miller); spring of 1910 near Bernardsville (J. D. Kuser); June 8, 1907 (Montclair); not recorded since 1918 at Elizabeth (Urner).

ENGLEWOOD REGION. Of variable status; in the eighties rare, recorded in April and September (Chapman); later a colony became established on the east slope of the Palisades, where by 1911 the bird was positively common; this colony much reduced in numbers by the winter of 1913-14, and wiped out by the winter of 1917-18; one individual seen in April 1922 (Chapman) may mark the beginning of its reappearance in the region.

HOUSE WREN (*Troglodytes aedon*)

The familiar little House Wren is a generally common summer resident throughout, but is relatively uncommon near the sea and in the suburbs, where it has decreased markedly in the last twenty-five years, thanks to the Starling and the House Sparrow. The first individuals arrive the last days of April, and the species remains until October. About the middle of August most of our Wrens disappear from our lawns and gardens, and are then detected in thickets and dense undergrowths on the edges of woods or swamps. The House Wren is not yet entirely domesticated, and a few still nest in hollows in swampy woods away from the haunts of man.

Long Island. Common summer resident, April 14, 1922, Islip (Miss E. R. Jenks) and April 19, 1922 at Garden City (J. T. Nichols) to October 18; casual March 29.

ORIENT. Rare summer resident in East Marion (Mabel R. Wiggins); otherwise a very rare transient; April 20, 1908 to May 30; August 20, 1917 (Mrs. Frank D. Smith) to October 8, 1910.

MASTIC. Uncommon summer resident.

LONG BEACH. Casual on migration, October 18, 1917 and October 13, 1919 (Bicknell).

New York State. Common summer resident in northern Westchester County, steadily decreasing in the suburban districts.

CENTRAL PARK. Bred at least as late as 1908; now an uncommon spring and rare fall transient; April 22, 1905 (Hix)

to May 17, 1921 (Griscom); October 6, 1921 (Griscom) to October 13, 1919 (L. N. Nichols).

BRONX REGION. Uncommon summer resident, decreasing; April 19, 1914 (G. K. Noble) to October 11, 1920 (L. N. Nichols).

New Jersey. A generally common summer resident, decreasing in many parts of the suburban area; arrived April 16, 1922 at Elizabeth (Urner) and April 18, 1922 at Montclair (Howland).

ENGLEWOOD REGION. Uncommon summer resident, decreasing; April 19, 1913 (Bowdish) to October 12, 1916 (Griscom and J. M. Johnson).

WINTER WREN (*Tannus hiemalis*)

The elusive Winter Wren is an uncommon transient and rare winter resident in most of the area, with a preference for rocky banks, ravines, and brush piles. It arrives the very last of September or early October and lingers until the end of November. In spring, when it is usually a rare bird, it passes north from the end of April to the middle of May. Occasional birds are observed in March. These undoubtedly represent individuals which have wintered much farther north than the majority. It has decreased near the City.

The Winter Wren is a smaller bird than the House Wren, with a *much shorter tail*. It has a light superciliary stripe, and the underparts are but little lighter than the upperparts, instead of markedly lighter.

Long Island. Uncommon transient and rare winter resident; September 14 and 29 to May 20.

ORIENT. Uncommon transient and rare winter resident; irregular; September 14, 1913 to May 1, 1902; average arrival September 24.

MASTIC. Uncommon late fall transient.

LONG BEACH. Casual on migration; March 29, 1914 (Hix); November 7, 1911 (W. H. Wiegmann); November 2, 1916 (Bicknell).

New York State. Now rarely wintering in the suburban sections.

CENTRAL PARK. Now a rare transient; formerly more common, occasionally spending the winter; September 26,

1914 (Hix) to November 30, 1907 (Griscom); March 19, 1918 (Hix) and April 10, 1914 (Griscom) to May 15, 1912 (Anne A. Crolius). Wintering birds have always left in March; in spring observed chiefly in May.

BRONX REGION. Now rarely observed; September 28, 1885 (Dwight) to December 31, 1908 (Griscom); April 26, 1908 (L. N. Nichols).

New Jersey. Now much rarer than formerly in the suburban section; irregularly fairly common locally in late October and November, and in winter.

ENGLEWOOD REGION. Now of rare occurrence; formerly more common and occasionally wintering in some numbers on the east slope of the Palisades; September 13, 1886 (Chapman) to May 11, 1919 (Granger and Griscom); now rarely recorded between December and May.

SHORT-BILLED MARSH WREN (*Cistothorus stellaris*)

This Marsh Wren is an exceedingly local summer resident, and is so rare as a transient, that it is unknown to those students who do not live near a breeding colony or make a special trip to such a locality. It does not occur in cat-tail marshes, but prefers open sedgy meadows with a dense tangle of vegetation through which meanders some sluggish stream. Here it can best be detected by its song which is a staccato *chap, chap, chapper, chapper, chapper*, rapidly running down the scale and increasing in tempo at the same time. But little is known about its migrations.

Long Island. Very rare or casual transient; autumn of 1901 (A. H. Helme); September 12, 1908 at Freeport (Weber); October 18, 1910 at Floral Park (H. Thurston); December 28, 1913 at Jones Beach (Griscom); specimen collected in every case.

LONG BEACH. October 3, 1917 (Bicknell).

New York State. Recorded as a rare summer resident near Ossining, remaining to October 16 (Fisher).

BRONX REGION. Six adults and four young discovered in the Baychester marshes June 15, 1917 (L. N. Nichols).

New Jersey. A very local summer resident; colonies are known in the Great Swamp and the Passaic Meadows near Chatham; in Sussex County this Wren nests commonly in the Walkill Valley (S.

N. Rhoads, Griscom) and along the Paulin Kill near Newton (Hix and Rogers); also in the extensive meadows of the Pequest River in Warren County (Griscom). The only spring arrival date before me is May 8, 1921 in the Passaic Valley near Stirling (Miller).

ENGLEWOOD REGION. One record, August 16, 1898 (Dwight).

LONG-BILLED MARSH WREN (*Telmatodytes palustris*)

The Long-billed Marsh Wren is an abundant summer resident of our coastal marshes and tidewater swamps, with a marked preference for cat-tails. As might be expected it is very local inland. The first birds arrive in the second week in May, but the full complement of breeding individuals is not reached until two weeks later, when the vegetation is further advanced. A few birds remain regularly into October, a very few into November, and the species is casual in winter.

Long Island. Common summer resident, of casual occurrence in winter; April 8; May 4 to October 26.

ORIENT. Possibly a rare summer resident in East Marion; otherwise a rare transient; May 1 to May 5; September 13 to October 12; also December 22, 1918.

MASTIC. Fairly common summer resident, decreasing.

LONG BEACH. A pair or two occasionally breed; May 17, 1911 (Griscom) to October 13, 1921 (Bicknell) and November 25, 1920 (Crosby).

New York State. A common summer resident along the coast and up the Hudson River, wherever the marshes have not been drained or filled in. Recorded October 28 at Ossining (Fisher).

CENTRAL PARK. Casual transient; May 13, 1901 (Chubb); May 10, 1922 (Mrs. Meade).

BRONX REGION. Uncommon summer resident, formerly abundant locally; May 10, 1912 (Griscom) to October 17, 1921 (L. N. Nichols).

New Jersey. An abundant summer resident in the coastal marshes, becoming increasingly local inland.

ENGLEWOOD REGION. Abundant summer resident in the Overpeck Marshes; May 4, 1912 (Griscom) to November 25, 1915 (Rogers).

BROWN CREEPER (*Certhia familiaris americana*) Fig. 30

The Creeper is generally distributed in our area as a winter resident of regular occurrence, but is usually only fairly common, arriving the end of September and remaining until the first week in May or even later. It is always a very common transient. It has been found nesting in one locality in northwestern New Jersey, and might occur in others.



Courtesy of D. Appleton & Co. From *Bird-Life*

Fig. 30. Chickadee and Brown Creeper

Long Island. Abundant transient, fairly common winter resident, September 10 to May 19.

ORIENT. Common transient, rare in winter; September 10, 1913 to May 19, 1917 (Mabel R. Wiggins); average arrival September 24.

MASTIC. Fairly common transient and winter resident.

LONG BEACH. Casual on migration, five records in fall from October 12, 1914 (Bicknell) to November 3, 1914 (J. M. Johnson).

New York State. Fairly common winter resident, common in migration.

CENTRAL PARK. Common transient, formerly wintering occasionally; September 9, 1913 (Hix) and September 17, 1921 (Carter and Griscom) to November 30, 1907 (Griscom); April 2, 1913 (LaDow) to May 21, 1917 (Hix).

BRONX REGION. A fairly common winter resident, common on migration; September 13, 1921 (Griscom) to May 3, 1915 (L. N. Nichols).

New Jersey. A rare but regular breeder in an elm swamp near Andover, Sussex County (P. B. Philipp); otherwise a fairly common winter resident, common in migration; recorded September 11, 1921 at Elizabeth (Urner).

ENGLEWOOD REGION. Recorded from September 12, 1903 (Hix) to May 10, 1911 (Griscom); transients arrive in early April.

WHITE-BREASTED NUTHATCH (*Sitta carolinensis*)

A familiar permanent resident in woodland throughout the area, common in winter, generally distributed, but scarcely to be called common in summer. There is a distinct migration in late September and October, but there is very little evidence of a return flight in spring.

ORIENT. Uncommon resident on Gardiner's Island; elsewhere a rare visitant, July to May.

CENTRAL PARK. Uncommon fall, rare spring transient, formerly wintering regularly; September 11, 1913 (Hix) to October 13, 1921 (Carter and Griscom); April 10, 1922 (Laidlaw Williams) to May 9, 1907 (Chubb).

RED-BREASTED NUTHATCH (*Sitta canadensis*)

This pretty little Nuthatch is one of our most erratic birds. About three years out of five it will appear in the fall anywhere from mid-August to the end of November. Its numbers will vary greatly, and the length of its stay will never be the same two years in succession. As a general rule it will be recorded in May, if it came down the preceding fall, but it has never been common in spring, and often is not detected at all. On rare occasions a bird or two winter locally.

Long Island. Irregular transient, sometimes common in fall, rarely wintering; August 10 to May 20; casual July 20 (Dutcher).

ORIENT. Irregularly common transient, very rare in winter; August 10, 1912 to May 20, 1917; average arrival September 1; last southward transients depart about November 15.

MASTIC. Irregular transient, sometimes numerous in fall, occasionally wintering; recorded from August 22, 1921 to May 17, 1919.

LONG BEACH. Rare transient; three spring records, April 20, 1913 (Griscom) to May 17 and 24, 1917 (Bicknell); more often in fall, September 10, 1914 (Bicknell) to October 27, 1912 (Griscom).

New York State.

CENTRAL PARK. Irregularly common fall transient, August 16, 1906 (Hix) and August 27, 1921 (Griscom) to October 17, 1907 (Griscom); has wintered at least twice; uncommon or rare spring transient, recorded only when it appeared the preceding fall, April 23, 1913 (Anne A. Crolius) to May 24, 1917 (Janvrin), casually to June 4, 1917 (Hix) and June and July, 1892 (F. M. Chapman).

BRONX REGION. An irregular transient, rarely wintering; August 25, 1921 (Griscom), February 28, 1914 (Griscom) and May 23, 1919 (L. N. Nichols).

New Jersey. Status as in other sections.

ENGLEWOOD REGION. Irregular transient, rarely recorded between November 15 and May 1; August 20, 1921 (Chapman) to May 17, 1914 (Griscom, LaDow, J. M. Johnson).

TUFTED TITMOUSE (*Bæolophus bicolor*)

The Tufted Titmouse is a species of the Carolinian Zone, which reaches its extreme northern limit in this territory, and apparently now breeds a little further north in New Jersey than it formerly did. It is of purely accidental occurrence on the east side of the Hudson River.

Long Island. Stated by Giraud to be common in his day; now accidental, only four definite records, the most recent a single bird near Coney Island, September 25, 1921 (Ralph Friedmann).

New York State. A permanent resident on Staten Island; accidental elsewhere; recorded from Williamsbridge, New York City (George N. Lawrence).

CENTRAL PARK. One record, a bird present for two weeks in May, 1908 (Anne A. Crolius).

BRONX REGION. Accidental; November 29, 1874 to March 28, 1875 at Riverdale (Bicknell); February 12, 1911 (Griscom); end of March, 1914 (A. A. Saunders); November 6, 1919 (L. N. Nichols) to May 20, 1920 in Bronx Park (numerous observers).

New Jersey. A common permanent resident from the Raritan River north to Elizabeth, Plainfield, Orange, Summit, Morristown, and in recent years to Englewood; recorded once at Montclair (Howland), once at Lake Hopatcong (Dwight); a nesting colony near Andover, Sussex County (P. B. Philipp).

ENGLEWOOD REGION. Formerly a rare spring visitant, first found wintering in 1900 (Chapman); a permanent resident by 1907, increasing, and fairly common by 1913; exterminated by the heavy snowfall in February and March 1920; reappeared in May 1921, and at present there are one or two resident pairs (Griscom).

CHICKADEE (*Penthestes atricapillus*) Fig. 30

One of our best known birds, and a permanent resident throughout the territory, fairly common in summer, very common or abundant in fall and winter.

LONG BEACH. Casual; October 27, 1912 (Griscom and LaDow); December 14 to 18, 1913 (Bicknell and Griscom); January 20, 1916 (Bicknell).

CENTRAL PARK. Formerly a common winter resident, arriving the middle of October, rarely earlier, and remaining until April 22, 1911 (Hix); September 24, 1921 (Carter and Griscom) and October 6, 1912 (Griscom); it has not wintered the last two years and has been recorded in fall only.

HUDSONIAN CHICKADEE (*Penthestes hudsonicus hudsonicus*)

Accidental winter visitant from the northwest. A specimen captured at Ramsay, New Jersey, on November 1, 1913 by Charles R. Sleight, and now in the American Museum of Natural History, has been referred to this subspecies by W. DeW. Miller and Dr. Charles W. Townsend (See Auk, 1920, p. 593).

LABRADOR CHICKADEE (*Penthestes hudsonicus nigricans*)¹

There was a remarkable southward flight of Hudsonian or Brown-capped Chickadees in the winter of 1916-17. All specimens taken locally and at various points in New England belonged to the recently described Labrador race, which anyone can recognize in life, who is well acquainted either with the typical Hudsonian or the Acadian Chickadee, so strongly marked are its characters. The various sight records made locally are consequently referred here, as the presumptive evidence is strong. There is no difficulty in recognizing the Hudsonian Chickadee, should another flight occur. Instead of being black-capped, white, and gray, it has a brownish-gray cap, the back is brownish and the sides are rufous. The call note is a nasal, drawling *tchick*, *chee-day-day*, with pronounced intervals and strongly accented, quite different from any effort of the Black-capped Chickadee.

Long Island. Two sight records are presumably this subspecies; November 13, 1916 at Hewlett (Bicknell, Auk, 1917, p. 93); December 2, 1916 at Roslyn (Gerald H. Thayer).

New York State. Four birds were discovered December 2, 1916 on Staten Island by Harold K. Decker, in the Moravian Cemetery. As many as five individuals were seen at one time by H. H. Cleaves, and many other observers. At least one bird remained until February. As a matter of record I collected a specimen on January 14, 1917, which was clearly referable to *nigricans*.

BRONX REGION. A Brown-capped Chickadee, presumably *nigricans* was discovered in Van Cortlandt Park on October 29, 1916 (C. L. Lewis).

New Jersey. Two Labrador Brown-capped Chickadees were found in a cedar grove near Scotch Plains December 17, 1916 (W. DeW. Miller). One collected on December 31, was clearly referable to *nigricans*. The other was last seen on January 28. On January 7 Miller saw a single individual in another locality between Plainfield and Stirling, and on February 4 he and Mr. Chas. H. Rogers found another individual between Westfield and Summit (See Miller, Auk, 1917, p. 218).

¹This recently proposed subspecies has not yet been passed upon by the A. O. U. Committee.

ENGLEWOOD REGION. A Brown-capped Chickadee was observed December 23, 1916 (Lester Walsh and G. O. Shoonhoven), and Mr. C. H. Rogers saw possibly the same individual on January 1, 1917. These birds were presumably *nigricans*.

GOLDEN-CROWNED KINGLET (*Regulus satrapa*)

This Kinglet is a fairly common winter resident in favorable places, and is usually a common transient. There was a great mortality of this species in the severe winter of 1917-18, and it was quite rare for several years. It has slowly increased since, and in the fall of 1922 was as common as formerly. It arrives about October 1, remains until May, and the winter population is greatly reinforced by transients from the south in early April.

Long Island. A fairly common winter resident, September 14 and September 21 to May 7 and May 19.

ORIENT. Common transient, rare winter resident; September 14, 1913 to May 19, 1917; average arrival September 26; arrival from south April 1.

MASTIC. Fairly common winter resident.

LONG BEACH. One spring record, April 1, 1917 (Janvrin); regular fall transient, October 7, 1919 (Crosby) to November 19, 1916 (Hix).

New York State. Winters much more commonly up the Hudson River than near the City; recorded September 20 at Ossining (Fisher).

CENTRAL PARK. Formerly a very common transient, occasionally wintering; rare or uncommon since the winter of 1917-18; September 26, 1922 (Carter, Griscom, Howland) to November 22, 1918 (Janvrin); March 26, 1913 (LaDow) to May 3, 1914 (Hix).

BRONX REGION. Formerly a common and regular winter resident; now a common transient wintering occasionally; September 26, 1922 (Griscom) to April 23, 1918 (L. N. Nichols).

New Jersey. Much less common in winter in the suburban section than formerly.

ENGLEWOOD REGION. Formerly an abundant transient, occasionally wintering; known only as a rare or uncommon transient since the winter of 1917-18, but slowly increasing and unusually numerous in the fall of 1922; September 24, 1887 (Chapman) to May 3, 1914 (Griscom).

RUBY-CROWNED KINGLET (*Regulus calendula*)

The Ruby-crowned Kinglet is a common transient throughout the territory of the hand-book, with a migration which is practically identical with those of the Yellow Palm Warbler and the Hermit Thrush. There are a very few winter records, chiefly in the vicinity of the coast.

Long Island. Common transient; April 1 to May 17, 1917 at Hempstead (Murphy and J. T. Nichols) and May 23 at Orient; September 14 and September 21 to November 11; three December records.

ORIENT. Uncommon transient; April 12, 1908 to May 23, 1914; September 14, 1913 through October, irregularly to November and December 28, 1920.

MASTIC. Fairly common transient.

LONG BEACH. Uncommon spring, regular fall transient; April 14, 1922 (Bicknell) to May 17, 1917 (Bicknell); October 1, 1918 (Bicknell) to November 7, 1916 (Bicknell).

New York State. Recorded in winter on Staten Island. (H. Cleaves and Harold K. Decker).

CENTRAL PARK. Very common transient; March 31, 1910 (Anne A. Crolius) to May 16, 1910 (Griscom); September 15, 1913 (Hix) to November 10, 1912 (Griscom).

BRONX REGION. Common transient; March 24, 1895 (E. I. Haines) to May 18, 1916 (L. N. Nichols); October 1, 1916 (L. N. Nichols) to October 27, 1919 (L. N. Nichols) and November 28, 1914 (LaDow and Rogers); one winter record, January 11, 1921 (Chubb).

New Jersey. A common transient throughout; one noted August 29, 1922 at Cedar Pond, Passaic County (W. DeW. Miller), and another September 11, 1921 near Elizabeth (Urner) both abnormally early dates; several winter records for Plainfield (Miller) the last February 1 to 12, 1913.

ENGLEWOOD REGION. A common transient; September 15, 1887 (Chapman) to November 28, 1914 (LaDow and J. M. Johnson); April 2, 1922 (Janvrin and Laidlaw Williams) to May 16, 1914 (J. T. Nichols); recorded during the winter of 1908-09 at Demarest (Bowdish).



PLATE V. TUFTED TITMOUSE

Courtesy of the National Association of Audubon Societies



BLUE-GRAY GNATCATCHER (*Polioptila cærulea*)

The Gnatcatcher is a southern species, which has been found nesting in southern New Jersey, and Dr. Stone regards it as a rare and local summer resident in the extreme southern part of the State. North of this point it is regarded as a casual wanderer. So numerous, however, are the records for this little bird near New York City and on Long Island both in spring and fall, that it is impossible to class it as anything but a rare transient. Where the spring birds go to and where the fall birds come from is a mystery, which still awaits solution. Practically all the records are strictly coastal; the bird is very rare or unrecorded inland. It is indisputable, however, that in this narrow coastal strip, the Gnatcatcher is a commoner bird than the Golden-winged or Mourning Warblers. Fortunately few of our local birds are so distinctive in size, color, shape and note, and the numerous sight records given below can be accepted with absolute confidence. Most of them, especially those in Central Park, were made by a large number of people.

Long Island. A rare transient, in spring chiefly at the western end, in fall chiefly at the eastern end; numerous records, especially in fall; April 7 and 10, 1910, Prospect Park, Brooklyn (E. W. Vietor and many others) to April 18; July 1, 13 and 30 to October 11.

ORIENT. Late summer and fall visitant; one spring record, April 16, 1908 at Peconic (Mrs. Frank D. Smith); July 30, 1908 to September 10, 1917; numerous records.

MASTIC. One record, September 21, 1918.

New York State. Frequently observed in Central Park, rarely in the Bronx Region, very rare or accidental elsewhere; on May 6, 1922 Mr. Arthur Janes found a singing male at Scarsdale; he very courteously responded to my request for further information, and wrote so detailed an account of his observation that there can be no doubt of the correctness of his identification, although he had never seen the bird in life before.

CENTRAL PARK. A rare transient, recorded chiefly in spring; seventeen records in twenty-one years; May 22, 1901 (C. B. Isham); May 10, 1904 (Carleton Schaller); April 24

and May 9, 1905 (Hix); May 5, 1907 (Hix); April 7 and 8, 1910 (Griscom); May 11, 1910 (Griscom); April 18, 1911 (Griscom); April 27, 1913 (Griscom); May 9, 1916 (Janvrin); April 30, 1920 (Dr. Ellsworth Elliott); May 14, 1920 (L. N. Nichols); May 24, 1920 (Griscom); May 3, 1922 (Griscom); also September 10, 1905 (Hix); September, 1910 (Anne A. Crolius); August 28, 1922 (Griscom).

BRONX REGION. Specimen taken at New Rochelle, September 12, 1895 (E. I. Haines); one seen May 3, 1912 (Messrs. Burdsall, Comly, Cook and Maples); one seen May 7, 1920 (L. N. Nichols and E. G. Nichols).

New Jersey. Apparently of purely casual occurrence in our area; on May 16, 1920 one was seen by the Passaic River near Plainfield (W. DeW. Miller and C. H. Rogers).

TOWNSEND'S SOLITAIRE (*Myadestes townsendi*)

An accidental visitor from the far West. One was taken at Kings Park, Long Island, on November 25, 1905 (J. A. Weber).

WOOD THRUSH (*Hylocichla mustelina*)

A common and well-known summer resident throughout, except near the sea. It arrives the last days of April or the first days of May, and lingers into October. Breeding birds disappear from their nesting haunts the end of August. After this Wood Thrushes are very hard to find, and but few are recorded.

Long Island. Common summer resident, April 13 and May 1 to October 29.

ORIENT. Summer resident, locally rare; May 1, 1908 to September 24, 1914; average arrival May 4.

MASTIC. Fairly common summer resident.

LONG BEACH. Casual on migration, three records, May 4, 1916 to May 17, 1917 (Bicknell).

New York State. Common summer resident throughout.

CENTRAL PARK. Formerly a common transient, a pair or two breeding annually; in the last few years a very uncommon transient; April 28, 1908 (Anne A. Crolius) to May 25, 1907 (Griscom); September 28, 1914 (Hix) to October 5, 1921 (Carter and Griscom).

BRONX REGION. Common summer resident, May 2, 1916 (L. N. Nichols) to October 20, 1916 (L. N. Nichols).

New Jersey. Common summer resident throughout; noted casually near Plainfield, December 19 and 25, 1909 (Miller).

ENGLEWOOD REGION. Common summer resident, April 26, 1900 (Bird-Lore migration tables) to October 3, 1886 (F. M. Chapman); recorded in November (J. A. Weber).

WILSON'S THRUSH; VEERY (*Hylocichla fuscescens*)

A common summer resident in the richer woodland of our area, locally absent from the coastal plain, where it is known chiefly as an uncommon transient. It is the first of our thrushes to leave, and is rarely recorded even in September. On foggy August nights the mellow calls of Veeries and Bobolinks from the sky are a feature of the migration, mingled with the harsher cries of Night and Green Herons and various Shorebirds. Many late September and October sight records of this thrush are undoubtedly erroneous and are omitted.

Long Island. Fairly common transient, occasionally nesting on the north shore; April 13 and May 1 to May 23; September 2 to October 15 and casually to November 5.

ORIENT. Rare transient; May 1, 1909 to May 23, 1914; September 15, 1913 to October 11, 1917 (Mabel R. Wiggins).

MASTIC. Uncommon transient.

LONG BEACH. Casual on migration; recorded by Mr. Bicknell on May 8, 1919, May 9, 1917 and September 2, 1920.

New York State. A common summer resident in northern Westchester County, decreasing southward.

CENTRAL PARK. Formerly a common transient; now uncommon in spring, rare in fall; April 30, 1914 (Hix) to May 30, 1907 (Griscom); August 20, 1915 (Hix) to September 17, 1910 (Hix).

BRONX REGION. Uncommon summer resident; April 12, 1912 (G. K. Noble); May 3, 1887 (Dwight) to September 17, 1916 (L. N. Nichols); I have noticed transients at Riverdale August 27, 1922.

New Jersey. Common summer resident throughout, decreasing along the southern boundary of the area.

ENGLEWOOD REGION. Common summer resident, April 26, 1914 (LaDow) to September 20, 1885 (Chapman).

GRAY-CHEEKED THRUSH (*Hylocichla aliciae aliciae*)

The Gray-cheeked Thrush is a common transient in most of our area, but is less common on Long Island. It passes north the second half of May, and returns during the latter part of September and early October. On one occasion I have heard it sing. The greatest care should be used in separating this species from the Olive-backed Thrush. The plate in Doctor Chapman's Handbook is a better aid than pages of detailed description. Sight records given below may include Bicknell's Thrush.

Long Island. Fairly common transient; May 6 and May 11 to May 30; (September 1) September 17 to October 12.

ORIENT. Common transient; May 6, 1914 to May 30, 1912; average arrival May 15; September 1 and September 18, 1914 to October 2, 1910.

MASTIC. Uncommon transient.

LONG BEACH. Occasional on migration; May 18, 1916 (Bicknell); September 1, 1919, September 8, 1921 and September 21, 1916 to October 13, 1919 (Bicknell).

New York State. A generally common transient; casual at Ossining, November 21, 1922 (Courtenay Brandreth, specimen collected).

CENTRAL PARK. Common transient; May 9, 1922 (Griscom) to June 4, 1907 (Chubb); September 9, 1913 (Hix) to October 16, 1915 (Hix).

BRONX REGION. Common transient; May 7, 1922 (Starck brothers) to May 25, 1920 (L. N. Nichols); September 17, 1884 (Dwight) to October 21, 1916 (C. L. Lewis).

New Jersey. A common transient.

ENGLEWOOD REGION. Common transient; May 7, 1922 (Griscom and Janvrin) to June 1, 1897 (Bird-Lore migration tables); September 6, 1915 (Weber, specimen taken) to October 13, 1919 (Rogers).

BICKNELL'S THRUSH (*Hylocichla aliciae bicknelli*)

Bicknell's Thrush is nothing but a dwarf subspecies of the Gray-cheeked, with only a slight average difference in measurements. To be certainly identified it must be killed,

carefully sexed and measured. Few specimens have been shot in our area, but this should not be taken as indicating its rarity. Breeding directly north of us, it must pass through in numbers every spring and fall. I cannot regard this bird as identifiable in life, and reject all sight records. It is true that every year I see very small Gray-cheeked Thrushes, sometimes with direct comparison with other species, and others have often had the same experience. The difference in size, however, is so slight, and the chance for error so great, that there is no real satisfaction in speculating on the subspecific identity of these birds. There is a very good chance, however, that judicious collecting of such suspicious looking birds would prove that a majority of them, at least, belonged to this race.

Long Island. Not uncommon transient, collected chiefly in fall; May 21 and 22; September 18 to October 23.

LONG BEACH. One found freshly killed October 12, 1921 (Bicknell).

New York State.

BRONX REGION. Specimens collected May 16, 1887 and May 12, 1890 (Dwight).

New Jersey. I am not aware of a specimen ever having been taken in our section.

OLIVE-BACKED THRUSH (*Hylocichla ustulata swainsoni*)

A very common transient throughout, but less common on Long Island, arriving a little earlier both spring and fall than the Gray-cheeked Thrush.

Long Island. Fairly common transient; April 30 and May 8 to May 30; September 4 to October 30.

ORIENT. Uncommon transient; May 3, 1908 to May 24, 1911; September 15, 1914 to October 10, 1915.

MASTIC. Uncommon transient.

LONG BEACH. May 8, 1919 (Bicknell), May 26, 1918 (J. M. Johnson), and May 30, 1911 (Griscom, Hix and Rogers); regular in fall, September 15, 1921 to October 13, 1919 (Bicknell).

New York State. A common transient throughout.

CENTRAL PARK. Common transient, often abundant in spring; April 30, 1914 (Griscom), May 2, 1913 (Griscom), May 3, 1911 (Griscom), and May 6, 1913 (Griscom) to June 5, 1900 (Chubb); September 1, 1914 (Hix) to October 14, 1907 (Griscom).

BRONX REGION. Common transient; May 6, 1919 (L. N. Nichols) to May 31, 1917 (L. N. Nichols); September 5, 1917 (Hix) to October 9, 1919 (L. N. Nichols).

New Jersey. A common transient throughout; recorded September 10, 1916 to October 13, 1918 at Elizabeth (Urner).

ENGLEWOOD REGION. Very common transient; May 6, 1919 (Granger and Griscom) to May 30, 1907 (Hix); September 14, 1886 (Chapman) to October 10, 1915 (J. M. Johnson, J. T. Nichols and C. H. Rogers).

HERMIT THRUSH (*Hylocichla guttata pallasii*)

The Hermit Thrush is best known in our territory as a common transient, arriving in early April with the Kinglets and the Yellow Palm Warbler. Indeed its period of migration is almost an exact parallel with that of the latter species. Probably a few birds winter somewhere near the coast every year, and occasionally this Thrush winters in some numbers, particularly in dense cedar groves, where the flowering dogwood has a large crop of berries. As a summer resident in our area its occurrence is quite inexplicable. Supposedly a Canadian Zone species, it might be expected in the higher hills of New Jersey, where, however, it is very rare. One is scarcely prepared, therefore, to find it a locally common summer resident in the hottest and driest pine barrens of Long Island, where the ground is carpeted with little else but the bear-berry and the pine barren sandwort.

Long Island. Common transient; locally common summer resident in the pine barrens and adjacent woodland; probably regular in small numbers in winter; March 21 to May 22; September 14 to December 1.

ORIENT. Common transient, frequently wintering; March 23, 1912 (Mabel R. Wiggins) to May 19, 1916; September 18, 1913 to December; average arrival September 23.

MASTIC. Fairly common summer resident, more numerous in migrations.

LONG BEACH. Occasional on migration; April 12, 1914 (Griscom) to May 8, 1919 (Bicknell); October 7, 1919 (Crosby) to November 19, 1911 (Griscom).

New York State. A common transient, occasionally wintering near the coast.

CENTRAL PARK. Common transient; March 25, 1916 (Hix) to May 16, 1907 (Chubb); September 26, 1921 (Griscom) to November 20, 1910 (Hix); rarely recorded in March and September; a bird spent the winter of 1908-09.

BRONX REGION. Common transient, occasional winter resident; April 10, 1886 (Dwight) to May 4, 1886 (Dwight); September 26, 1885 (Dwight) to December 23, 1918 (Hix).

New Jersey. A single pair found on the summit of Bearfort Mountain north of Newfoundland in July, 1921 at an altitude of 1400 feet, but none could be found in 1922 (W. DeW. Miller); otherwise a common transient throughout, wintering regularly near Plainfield (Miller) and more rarely northward and inland.

ENGLEWOOD REGION. Common transient, rarely wintering; April 1, 1898 (Bird-Lore migration tables) to May 14, 1921 (W. DeW. Miller); September 25, 1921 (Griscom and J. M. Johnson) to November 26, 1922 (Griscom and LaDow).

ROBIN (*Planesticus migratorius*)

One of our most abundant and best known summer residents, among the first to arrive and the last to leave. In the fall the flocks take to the open country, and wander about searching for dogwood and other berry-bearing trees and shrubs. A few birds probably winter somewhere along the coast every year.

Long Island. Probably a very few winter somewhere on the island every year; February 23 to December 23.

ORIENT. Irregular in winter.

MASTIC. Not recorded in winter.

LONG BEACH. Formerly a rare spring and regular fall transient; a pair or two now breed every season; March 10, 1921 (Bicknell) to November 27, 1918 (Bicknell) and December 22, 1912 (Griscom).

New York State. Winters every year near the coast, more rarely inland.

CENTRAL PARK. Common summer resident; February 10, 1901 (Chubb) to November 22, 1908 (Griscom); recorded in winter on several occasions years ago; average arrival March 10.

BRONX REGION. February 15, 1884 (Bicknell) to November 26, 1916 (Janvrin); winters almost every year.

New Jersey. Frequently wintering near Elizabeth (Urner) and Plainfield (Miller), more rarely northward and inland.

ENGLEWOOD REGION. March 14, 1920 (Griscom) to November 25, 1920 (Weber); a few sometimes winter.

VARIED THRUSH (*Ixoreus naevius*)

An accidental visitant from the far northwest.

Long Island. Three records; an old specimen from Islip (G. N. Lawrence); December 20, 1889 at Port Jefferson (A. H. Helme); November 19, 1905 at Miller Place (A. H. Helme).

New Jersey. One specimen taken at Hoboken in December, 1851, and recorded by G. N. Lawrence.

GREENLAND WHEATEAR (*Saxicola ænanthe leucorhoa*)

Occasional individuals of this European bird straggle down the American coast. Three specimens have been taken on Long Island, the last near Jamaica in 1885.

BLUEBIRD (*Sialia sialis*)

The soft warble of the Bluebird is one of the best known harbingers of spring to all those who dwell in the country. It is still a common summer resident in the rural sections, but is rare near the seacoast, and is steadily decreasing in the suburbs. It is one of the chief sufferers from the Starling and English Sparrow, and has disappeared from many an old haunt. The Bluebird is not particularly rare in winter, but is apparently less often recorded near the coast than further inland. However, it never winters in such numbers as the Robin.

Long Island. Common summer resident, occasional in winter; February 22 to November 28.

ORIENT. Rare summer resident, occasionally seen in winter; irregularly common transient; February 22, 1915 (Mabel R. Wiggins) to November 25, 1915; average arrival March 4.

MASTIC. Common transient, uncommon summer resident.

LONG BEACH. Four spring records, March 12, 1911 (Griscom) to April 15, 1919 (Bicknell); rare in the fall, October 22, 1911 (Griscom) to November 3, 1914 (Hix and Rogers).

New York State. Reported as a common permanent resident at Ossining (Fisher); now steadily decreasing as a summer resident.

CENTRAL PARK. Rare spring, uncommon fall transient; March 12, 1905 (Hix) and March 29, 1910 (Anne A. Crolius) to April 30, 1901 (Chubb); October 21, 1910 (Hix) to November 4, 1917 (E. G. Nichols) and December 15, 1901 (C. H. Rogers); only seven spring records in twenty-two years.

BRONX REGION. Uncommon summer resident, decreasing; February 7, 1884 (Bicknell) to November 26, 1916 (Janvrin).

New Jersey. A common summer resident in the rural districts, steadily decreasing in the suburban area; wintering frequently near Elizabeth, Plainfield, Morristown and Montclair, in some localities more often than the Robin.

ENGLEWOOD REGION. Common transient; formerly common summer resident and occasional winter resident; now uncommon summer resident and rare in winter; steadily decreasing; February 22, 1909 (Chapman) to November 22, 1913 (J. T. Nichols).

APPENDIX

a. EXTINCT AND EXTIRPATED SPECIES

GULL-BILLED TERN (*Gelochelidon nilotica*)

In the early part of the last century, when this species bred in southern New Jersey, it was regarded as a rare visitor on the coast of Long Island by Giraud and De Kay. Four definite records exist for Long Island; South Oyster Bay, July 4, 1882; Shinnecock Bay, July 8, 1884; Point Lookout, Long Beach, July 1, 1885. It is worth noting that this Tern was regarded as rare in New Jersey in 1869 and last nested in 1890. Its occurrence in Long Island waters today would be purely accidental. Its *very stout, heavy* black bill, somewhat curved at the tip, is an excellent field mark.

Long Island.

LONG BEACH. One record, July 1, 1885 (Dutcher); Mr. N. T. Lawrence informs Mr. Bicknell that he killed two at Point Lookout on June 6, 1885.

FORSTER'S TERN (*Sterna forsteri*)

In the days when Forster's Tern nested in New Jersey, it may well have been a rare visitor to the coast of Long Island. Lawrence (1866) says: "A few years ago, in the autumn, I found in Fulton Market several specimens of this Tern, both adult and young, which came from Long Island." One of these specimens, now in the American Museum, was found in Fulton Market, September 30, 1857. Eaton gives four other records for Long Island, the last in 1883. Its occurrence now would be accidental. While it is indistinguishable in life from the Common Tern in the fall, there is no ground whatever for supposing that it is an uncommon fall transient in this vicinity, as has been recently stated.

Long Island. Formerly a rare visitor to Long Island; five records, September 3 to October 1; none in the last 40 years.

LONG BEACH. One shot by N. T. Lawrence October 1, 1872 has apparently never been recorded (information supplied by Mr. Bicknell).

LABRADOR DUCK (*Camptolaimus labradorius*)

This species was apparently not uncommon in winter on Long Island in former years. It is now totally extinct, and the last specimen was taken in 1875.

SNOWY EGRET (*Egretta candidissima*)

In former times Giraud regarded this species as not uncommon on Long Island from "late in the spring till the last of September," and it undoubtedly bred. Small companies of these birds were recorded every year from 1881 to 1885, since when no specimens have been taken on Long Island to my knowledge. The Snowy Egret is consequently extirpated as a summer resident, and its occurrence at the present time would be purely accidental. Many years ago Dr. A. K. Fisher collected a casual individual at Ossining.

WHOOPIING CRANE (*Grus americana*)

In colonial times this splendid bird undoubtedly occurred on migration in New England, New York, and New Jersey. "De Vries in his *Journal*, describing the country of New Netherlands, mentions White Crane as occurring (1639-42) with the swans, geese, and ducks which swarmed on the coast of New York Bay" (Eaton). It had apparently become extirpated by 1800, as it was unknown to Giraud or De Kay, but there is a record for New Jersey as late as 1857. This Crane is now on the verge of extinction, and is one of the rarest of North American birds.

BLACK-NECKED STILT (*Himantopus mexicanus*)

The history of the Stilt in our area is a repetition of the Avocet's. Two specimens from Long Island are in existence, the last taken in 1843. While commoner than the Avocet in southern New Jersey a century ago, it has been a much rarer species there in the last 50 years, and Dr. Stone gives only one record. Its occurrence on Long Island now would, therefore, be even more unlikely than the Avocet's.

LONG-BILLED CURLEW (*Numenius americanus*)

Sixty years ago this fine Curlew was a regular transient on the shores of Long Island. By 1880 it had become a scarce fall transient, but specimens were shot almost every season up to September 9, 1889, the last record. The migration dates were April 28, and July 21 to September 12. It is undoubtedly a bird of the past on Long Island, and its occurrence at the present time would be purely accidental. Mr. Roy Latham reports one on September 2, 1905 at Orient. A record published in Bird-Lore of a bird observed July 4, 1904 at Long Beach is not worth a moment's consideration.

LONG BEACH. Specimen shot August 20, 1873 (Newbold T. Lawrence).

ESKIMO CURLEW (*Numenius borealis*)

The Eskimo Curlew occurred formerly on Long Island in flights in fall after easterly gales, sometimes in numbers. It is now on the verge of extinction, if not actually extinct. The last definitely authenticated specimen was shot near Good Ground, Long Island, August 3, 1893. Two more recent records have been proved erroneous, and otherwise we have only a few reports of specimens shot by sportsmen who "knew the birds well years ago," but who thought nothing of it at the time. Such records are of little scientific value, when a bird almost extinct is involved, especially when some of them have been proved erroneous. One report, however, is worthy of full consideration. Mr. John H. Hendrickson of Jamaica, a veteran sportsman, who knows Long Island Shore-birds as well as any one living, and who has added much to our local knowledge of the rarer species, believes he saw two birds on September 1, 1913 (See Miller, Auk, 1915, p. 226).

OYSTER-CATCHER (*Hæmatopus palliatus*)

This is another of the long list of water-birds that are now extinct at the northern limit of their former range.

Formerly a summer resident on the coast of New Jersey, it has not been recorded since 1896. In Giraud's day the bird was "scarce" on Long Island. Three specimens were obtained between 1877 and 1882, the last captured at Greenport on June 2, 1882, thus appearing on the Orient region list.

HEATH HEN (*Tympanuchus cupido*)

Formerly a common resident in the scrub-oak barrens of Long Island. The last specimen was shot about 1840. The bird is now extinct throughout its former range, except for a small colony on Martha's Vineyard.

WILD TURKEY (*Meleagris gallopavo silvestris*)

In colonial times apparently abundant throughout our area. De Vries speaks of shooting one, which weighed 30 pounds, near New Amsterdam about 1640. The bird was extinct in our area, however, long before the days of our earliest ornithologists.

PASSENGER PIGEON (*Ectopistes migratorius*)

This species, now totally extinct, was formerly a common transient throughout our area. It had greatly decreased by 1875.

Long Island. Mr. Dutcher's Notes give ten records between 1885 and 1890, the last record a flock of six seen in the fall of 1890 at Miller Place (A. H. Helme), and a specimen was shot the preceding year. The dates are March 29, and September 7 to October 22.

New York State. The last record for this section seems to be October 11, 1888 in Westchester County (Gerald H. Thayer).

New Jersey. The last record for the State is October 7, 1893 at Morristown (A. B. Frost). The record of a specimen shot by C. Irving Wood at Englewood, June 23, 1896 proves to be erroneous.

ENGLEWOOD REGION. Last record, September 1878, two birds (Chapman).

b. INTRODUCED SPECIES**MUTE SWAN** (*Cygnus olor*)

The Mute Swan has been introduced on the Hudson River near Rhinebeck and at the South Side Club near Oakdale, Long Island. On several occasions the young birds have escaped from the latter place, and the Rhinebeck birds have also migrated. It is highly likely that some of the recent reports of Swans from Long Island and Barnegat Bay, New Jersey, refer to such feral Mute Swans, which have been positively identified at Mastic. In any case recent and future sight records of Swans cannot be credited automatically to the Whistling Swan, as was formerly the case. Unfortunately the distinction between the two species is one which requires a closer approach than is ordinarily possible. The Mute Swan has a frontal tubercle or knob, which causes a "distorted profile," and nearly half the bill is reddish orange. The Whistling Swan has a solid black bill and no tubercle.

Long Island.

MASTIC. Apparently a rare resident.

LONG BEACH. Five birds, doubtless this species, were observed July 17, 1920 (Newbold Herrick).

New Jersey. A young bird, picked up exhausted in Elizabeth, October 24, 1916, was erroneously recorded as a Whistling Swan by Mr. Chas. A. Urner, and subsequently corrected.

SKYLARK (*Alauda arvensis*)

Individuals of this species have been liberated from time to time near New York City, and in 1887 a small colony became established near Flatbush, Long Island. This colony was finally destroyed by the advance eastward of the City, and no individual of this species has been observed to my knowledge in ten years. Its introduction has been a failure, and the bird is not really entitled to a place in the A. O. U. Check List.

EUROPEAN GOLDFINCH (*Carduelis carduelis*)

This pretty European species was introduced at Hoboken in 1878. It appeared in Central Park the next year, and then spread to the upper parts of the City. For a time it gave every appearance of increasing in numbers. For some reason, however, this promise has not been fulfilled. Only a very few stragglers have been reported in the last ten years, and while it is too early to say that the bird is extirpated, its introduction can be declared a hopeless failure.

Long Island. Single individuals seen in Brooklyn on May 27, 1915 and April 27, 1918 (Fleischer).

CENTRAL PARK. Formerly a common resident, which had completely disappeared in 1907; one bird seen May 9, 1920 (L. N. Nichols).

New Jersey.

ENGLEWOOD REGION. I have no record of the arrival of this species, but its maximum numbers were reached about 1910. Last observed in 1915 (Nichols), and now probably extinct.

CHAFFINCH (*Fringilla cœlebs*)

Several pairs of this European species were released in 1890 in Central Park. Three individuals remained in 1906, and a single male survived several years longer. Possibly one of these same birds was seen in Prospect Park, Brooklyn, on January 10, 1909 (E. Fleischer).

The Greenfinch (*Chloris chloris*) and the Bullfinch (*Pyrrhula pyrrhula*) have been observed in Central Park. They were unquestionably escaped cage-birds. The European Linnet (*Linota cannabina*) has been recorded from Scarboro, N. Y., but was in all probability an escape. A Brazilian Cardinal (*Paroaria cucullata*), seen last spring in Central Park, was also a cage-bird. It seems useless to include such species in a local avifauna. One might as well add the Waxbills or Parrots occasionally reported! When a given species is known to be a common cage-bird at the time the record is made, it is impossible to prove that it is a genuine accidental visitant.

C. HYPOTHETICAL LIST

WESTERN GREBE (*Aechmophorus occidentalis*)

Messrs. Rogers, Hix, and Fleischer report a most satisfactory identification of a bird of this species at Long Beach, May 21, 1916. It was just outside the surf, and all conditions of observation were exceptionally favorable. They were all well acquainted with the Holboell's Grebe in life, and Mr. Rogers had had field experience with the Great-crested Grebe of Europe. The great size, long, swan-like neck and black and white coloration were all observed at leisure. It should also be noted that a Holboell's Grebe at this date would be unprecedented, and would have been in breeding plumage. There seems no reason to doubt the identification of a field ornithologist of such wide and lengthy experience as Mr. Rogers, and the occurrence is worthy of serious consideration. This Grebe, however, has never occurred on the Atlantic seaboard, and in such cases I follow Mr. Brewster's principle in considering that the personal opinion of observers and author had better be sustained by a specimen. Observations, therefore, of the Western Grebe on Long Island must be considered hypothetical, no matter how probable, until a specimen is collected.

GREAT AUK (*Plautus impennis*)

Singleton Mitchell in a "Partial Catalogue of the Birds of New York," made at Plandome, Long Island, and dated July 5, 1803, reports the "Penguin" in his list of 123 species, a name by which the Great Auk was generally known in colonial times. The existence of this excessively rare pamphlet was unknown to previous writers on New York State birds. The author was not a scientist, however, only English names were given, some of which are not positively identifiable; and there are no remarks or annotations of any kind. This report, therefore, cannot be regarded as definitely estab-



PLATE VI. WOOD THRUSH

Courtesy of the National Association of Audubon Societies

lishing the former occurrence of the Great Auk on Long Island, though this is quite possible or even probable.

CABOT'S TERN (*Sterna sandvicensis acuflavida*)

There is no valid reason for giving this species a place among the birds of New York State. De Kay states that it "has been little noticed on our coast," and Eaton cites a record of Lawrence in his catalogue of 1866, but there is some mistake, as this species is not mentioned. Giraud, who knew the birds of Long Island better than De Kay, does not mention it.

TRUDEAU'S TERN (*Sterna trudeaui*)

This South American species has even less claim to a place in this list than Cabot's Tern. Eaton includes it as a New York State bird, "which has been taken once on Long Island, as reported by Audubon. . ." The only statement Audubon ever made, however, was:—"I have received from Mr. Trudeau an intimation of the occurrence of several individuals on Long Island." No South American bird would be added to a state list today on such evidence as this, and I cannot see that the great age of the evidence increases its value. The Terns were very poorly understood in Audubon's day, and Trudeau doubtless knew even less about them than did Audubon.

RUFous-CRESTED DUCK (*Netta rufina*)

A specimen of this European species was found in Fulton Market in February, 1872. It was supposed to have come from Long Island, as the birds in this market did for the most part come from this locality. However, positive evidence is certainly absent, and we know that many game-birds in this market came from Chesapeake Bay and the West. Consequently, while there is no reasonable doubt that this species occurred accidentally in North America, its capture on Long Island is hypothetical.

BRAZILIAN TREE-DUCK (*Dendrocygna viduata*)

A specimen of this South American duck was killed on the Hackensack Meadows early in October, 1912 and sent to the taxidermist, Rowland, of New York, for preservation, where it was identified by George Bird Grinnell. The bird was not at all shy, and allowed itself to be shot, while sitting on a drift log. Dr. Grinnell, in recording the occurrence, did not seem to consider it of any great value. Certainly there is too much chance of its being an escape from some aviary to take it seriously as a genuine accidental occurrence of a wild bird.

HUTCHIN'S GOOSE (*Branta canadensis hutchinsi*)

This small western subspecies of the Canada Goose was regarded by Giraud as not uncommon in his day at the eastern extremity of Long Island. There are no records since, and no specimens from Long Island are in existence. The great variation in size of the Canada Goose makes sight records of this subspecies of little value, as a Goose apparently half a foot shorter than others in the same flock might perfectly well be a Canada Goose, unless its tail feathers were counted. Even if a bird in the flesh were in the hand, it would take an expert ornithologist to make a competent determination. Until a critically determined specimen is available, the occurrence of this race on Long Island is purely hypothetical, and under the circumstances Giraud's evidence cannot be regarded as positive.

EUROPEAN CURLEW (*Numenius arquatus*)

The record of a specimen said to have been taken on Long Island in 1853 is regarded by the American Ornithologists' Union Committee, as subject to some doubt. Its occurrence, therefore, in our area or in New York State is purely hypothetical.

GROUND DOVE (*Chæmepelia passerina terrestris*)

Dr. George Bird Grinnell has recorded that when a small boy he shot a "small pigeon" out of a flock in a tall tulip tree in October, 1862 on the upper end of Manhattan Island. The bird was shown to Mr. John Woodhouse Audubon, who pronounced it a Ground Dove. This is the only evidence of the capture of this southern species in New York State. The circumstances cannot be regarded as entirely satisfactory. The date is unlikely, and Ground Doves do not occur in tall trees. On the other hand Dr. Chapman has already suggested the possibility of escaped cage-birds, which would account at least for the abnormal date. In my opinion it would be better to regard the occurrence of the Ground Dove in New York State as hypothetical.

WHITE GYRFALCON (*Falco islandus*)

An arctic species, whose occurrence in our area is *purely hypothetical*. Mr. A. H. Helme, the veteran field naturalist, has reported a bird *seen* at Miller Place, Long Island, which he feels sure must have been this species.

BURROWING OWL (*Speotyto cunicularia hypogæa*)

A species of the Great Plains, which has been reported in this vicinity on one occasion. A bird flew into an uptown house in New York City, August 8, 1875 and was caught alive. This record is so remarkable, that one instantly suspects an escaped cage-bird. In my opinion it is entirely unsatisfactory, and Dr. Chapman was entirely correct in omitting it from his List. This species has no real claim to a place among the birds of New York State.

AMERICAN THREE-TOED WOODPECKER (*Picoides americanus*)

On February 5, 1918, which will be remembered as the severest winter on record, Mr. Charles Johnston, an active and careful observer, *saw* a male of this species in the woods near West Englewood, Bergen County, New Jersey. It was

comparatively tame and was studied at leisure. He noted the yellow crown patch immediately, the regular black and white barring of the back, and was able to name the bird at sight, without referring to a text-book. He was previously familiar with the Arctic Three-toed Woodpecker in life. Several days later a sister of Mr. J. M. Johnson reported to him a strange Woodpecker in the same locality. Her description clearly indicated this species. Neither the writer nor the Local Avifauna Committee of the Linnæan Society can find the slightest grounds for doubting an identification so well attested. This bird, however, has never occurred south of Massachusetts, and, in line with the discussion under the Western Grebe, the writer feels that a specimen had better be obtained, before so unlikely a species is definitely recorded from New Jersey.

HOYT'S HORNED LARK (*Otocoris alpestris hoyti*)

If this subspecies has really occurred, it is a purely accidental visitant from the Northwest. Its inclusion in the list of birds of New York State is based on a specimen taken at Long Island City, identified as this subspecies by Dr. H. C. Oberholser, who, however, admits that it is not typical. There are also specimens in the Dwight Collection which show a similar approach to *hoyti* in characters, taken during the winter on Shelter Island. The Horned Lark is now divided into numerous close and critical subspecies, which intergrade freely, and with considerable individual variation. In such cases I cannot regard the publication of accidental occurrences as of any scientific value. The subspecies are determinable in large series only, and the extremes of any one race are indistinguishable from the adjacent ones with which it intergrades. Records of accidental occurrence should be based at least on absolutely typical examples. Until such a typical specimen of Hoyt's Horned Lark is captured in New York State, its occurrence should be re-

garded as hypothetical. Even should an apparently typical example be taken, it could never be proved that such a specimen did not merely show that individual variation of the subspecies normally present was greater than formerly supposed.

PAINTED BUNTING (*Passerina ciris*)

While specimens of this beautiful southern Finch have unquestionably been taken in the vicinity of New York City, the captures were all made at a period when it was a popular cage-bird. Under these circumstances it is impossible to prove that any given specimen was a truly wild bird. Moreover it is not without significance that no capture was ever made before it became a popular cage-bird, or since that traffic was stopped. The species should be removed from the list of New York State birds, and its occurrence in our area in a wild state is purely hypothetical.

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ERRATA

- Page 24. Remove *Swainson's Hawk* from list of Accidental Visitants.
- Page 26. Under Summary, the number of Accidental Visitants should read 65, and the total should read 376.
- Page 27, line 3, for *three*, read *four*.
- Page 27, line 4, to list of extralimital species add *Swainson's Hawk*.
- Page 27, line 19, for 66, read 65.
- Page 27, line 21, for 377, read 376.
- Page 379, line 1, for *Camptolaimus* read *Camptorhynchus*.

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